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THE MANAGEMENT AND DEVELOPMENT OF HUMAN RESOURCES IN PORTS

Report by the UNCTAD secretariat

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INTRODUCTION

(i) This report follows upon the recommendations of the Ad Hoc Intergovernmental Group of Port Experts, which met at Geneva from 24 to 28 September 1990 pursuant to section IV of resolution 61 (XIII) of the Committee on Shipping, in its recommendations on the secretariat's future work programme, the Group gave priority to five studies, including one on "The development of human resources in ports".

A. Subject of the study

(ii) To the layman, the management and development of human resources is merely an important-sounding description of what has traditionally been known as administration or personnel management. This is not the view of the specialists or even of those who are reasonably well-informed about developments in this field, particularly those of the last twenty years.

(iii) Administration or traditional personnel management constitutes the indispensable minimum, often made mandatory by the social regulations in force. Specifically, it consists in accomplishing all the administrative and legal formalities relating to the personnel of an enterprise. The management and development of human resources, on the other hand, has proved to be an attribute of enterprises whose managers are aware of the strategic value of their human potential and include it among the factors to be managed and developed both in the short term and over a period extending three or five years into the future.

(iv) In the narrow sense, personnel administration deals with the administrative and legal matters relating to the enterprise's paid staff. Thus, the personnel are regarded essentially as a cost and a potential source of litigation to be watched and contained in order to keep the company operating normally. The idea is to remain in compliance with the regulations in force, avoid any infringement that might be detrimental to the company and compress the operating expenses associated with labour costs without upsetting the employees or worsening the social climate. All the measures and decisions relating to the personnel - from hiring to firing and including remuneration, internal mobility and training - are taken in this spirit of minimum cost and respect for the bare legal obligations. The annual cycle is the longest period contemplated by this mode of management, which is often and unavoidably practised on a day-to-day and case-by-case basis.

(v) In the rigour of the terms employed and the breadth of its actual requirements, the management and development of human resources presupposes that the personnel is regarded as a resource with capabilities and development potential. This resource has a unique property: it is elastic and can both expand and contract. It is managed as an investment with important knock-on or amplifying effects rather than as an expenditure or cost. Its management is closely linked to its development. Indeed, this resource can only be managed by being developed. The idea, the spirit, the context and the cycle are completely different from those characteristic or strictly administrative and legalistic personnel management. It is, in fact, a

question of progress, optimization and planning for the medium term, in addition to the short-term everyday management of costs and regulatory or legislative constraints. This policy affects both each employee individually and all those who collectively contribute to the success of the enterprise. It is applied to all the relevant activities: evaluation of the enterprise's human factor requirements and the resources available, the matching of resources to requirements by external recruitment or internal mobility, the defining and planning of training measures, wage policy and practices, appraisal of the performance and evaluation of the personal potential of each employee, etc.

(vi) Thus, the management and development of human resources have requirements that go beyond those of mere administration. The centres of interest are different and so are the rewards. All this implies the modernizing of theory and practice and a new frame of mind. The present study, prompted by the decisive developments in this area of business management, adopts this new approach. Thus, it emphasizes the themes and policies of human resource development and deliberately refrains from taking up the administrative and legal aspects, while recognizing their importance.

B. Scope of the study

(vii) Having explained the subject of the study, which concerns ports, their personnel and their human resources, we must now properly define its scope. In fact, the world's ports operate in a variety of different ways, in different circumstances and under different regulations. Which category of ports, then, should the study take as a reference? A recent UNCTAD study entitled "The principles of modern port management and organization" (TD/B/C4/AC.7/13) reveals a wide range of possibilities.

It distinguishes between three generations of ports:

- first generation ports (pre-1950) are limited to sea approach, transfer of goods, temporary storage and delivery;

- second generation ports go beyond this to include industrial and commercial activities which give added value to the goods: the port is a handling and services centre;

- third generation (post-1980) ports include all of the above plus structuring of the port community and strengthening links between town and port and between port and port-users; they extend the range of services offered beyond the port boundary; and they are equipped with an integrated system of data collection and processing ("infrastructure").

The study also identifies three main forms of port authority:

- the landlord-port acts like the owner of the port property and merely grants short- or long-term leases or concessions to public sector or private enterprises which operate the port and provide the necessary superstructure, equipment and maintenance;

- The tool-port itself provides the port superstructure and heavy equipment, which it then makes available to outside operators;

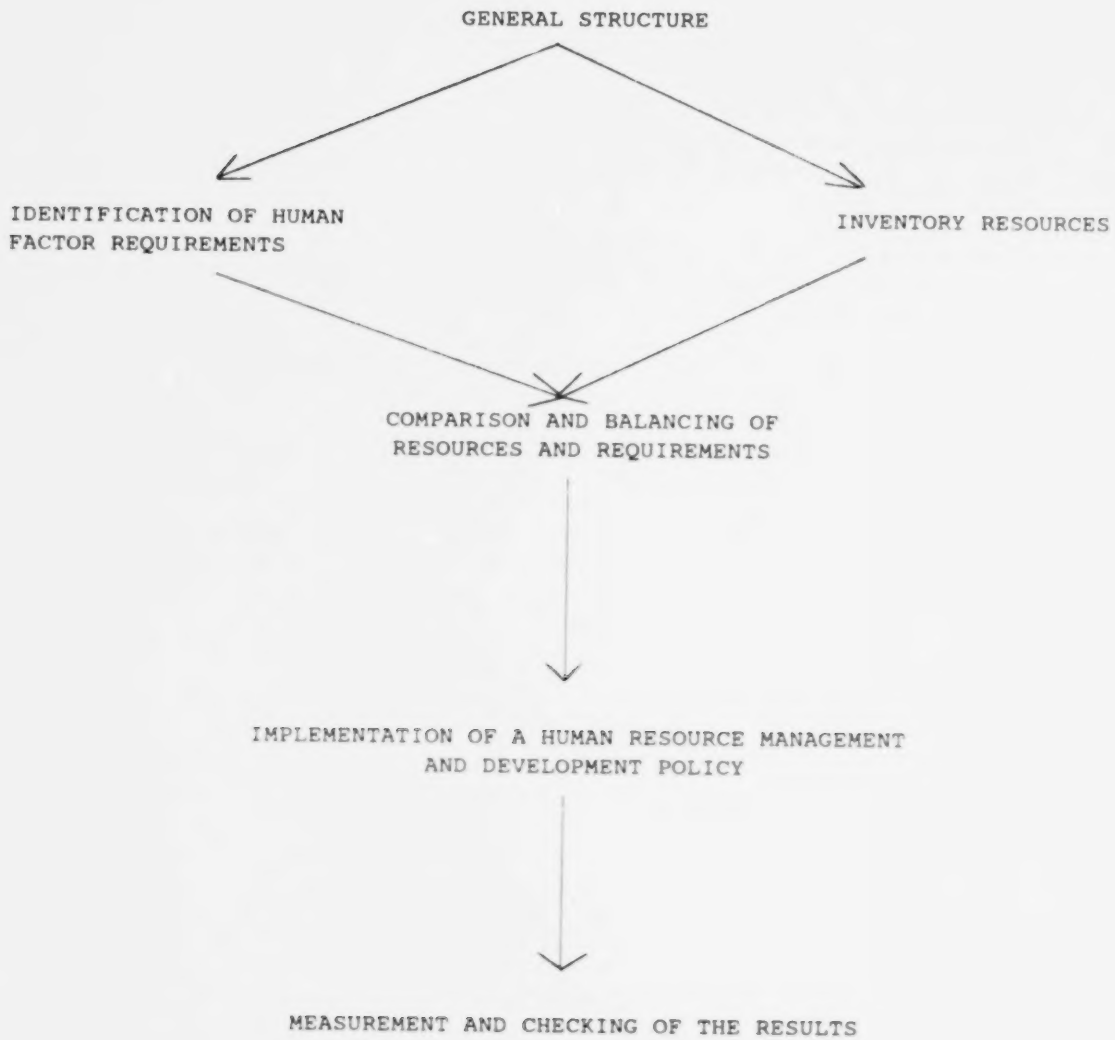
- the operating port also acts as the operator and maintains direct industrial and commercial relations with port users, while retaining its governmental powers vis-à-vis the port community.

There are several possible combinations of these three types of port authority.

(viii) This study has been so framed as to cover as many different situations as possible. However, as a working hypothesis, it assumes the circumstances of a second-generation operating port in the early stages of computerization with sufficient autonomy, by delegation from the regulatory authority, to manage and develop its human resources, which include a workforce of between 500 and 5,000 people. Ports with a narrower range of activities or a workforce of less than 500 should be able to construct a lighter, more flexible system based broadly on the approach adopted in this study. On the other hand, the relatively few ports whose activities extend beyond the port area or which employ more than 5,000 people would present considerable problems of data collection, processing and consolidation and would demand management systems of much greater complexity. Nevertheless, the phases of the process and its logical basis remain valid in every case.

C. Organization of the study

(ix) A glance at the following model of the general process of management and development of human resources will help to explain the main thrust of this study and make it easier to read and understand. The development of the human resources of a port enterprise presupposes that its personnel requirements have been identified, its resources inventoried and compared with requirements and the two brought into balance. It implies that the results of development are being measured, checked and monitored.


GENERAL STRUCTURE
IDENTIFICATION OF HUMAN FACTOR REQUIREMENTS
INVENTORY RESOURCES
COMPARISON AND BALANCING OF RESOURCES AND REQUIREMENTS
IMPLEMENTATION OF A HUMAN RESOURCE MANAGEMENT AND DEVELOPMENT POLICY
MEASUREMENT AND CHECKING OF THE RESULTS

(x) Identifying the requirements means establishing their extent (in terms of manpower) and their nature (by category and level of competence), while seeking to determine the optimum in the light of the port authority's profitability and productivity norms. The resources available must be inventoried, both quantitatively (number of staff) and qualitatively (category and level of competence), with a view to comparing them with the identified requirements and drawing up external recruitment and internal mobility plans to make good any shortfall. Developing the human resources then consists in implementing the plans drawn up and taking daily managerial decisions, action and positions consistent with those plans. Finally, measuring and checking the results of development make it possible to introduce the necessary adjustments and to progress.

D. Problems encountered when human resources are not properly managed

- A permanently overloaded recruiting service which, through lack of information and failure to plan ahead, lets the port executives down when filling vacant posts or meeting temporary requirements for trained staff.

- A social plan implemented without diplomacy and which seriously disturbs the functioning of entire sectors of the port while souring labour relations.

- A port in a permanent state of disarray due to large seasonal fluctuations in activity.

- Mismanaged manpower cuts that are necessary from the mechanization of handling operations.

- Unforeseen, poorly identified and unplanned human resource requirements, sectoral and by category (supervisor/worker).

Chapter I

MODELLING THE PORT JOB STRUCTURE

1. Identifying the port job structure is the first indispensable step, since it will make possible a structural evaluation, both qualitative and quantitative, of the port's short- and medium-term human resource requirements. This evaluation, in its turn, will permit a comparison to be made with the human resources available, so that shortfalls (or surpluses) can be detected and the necessary adjustments planned.

2. For this purpose, we must first construct a model or simplified synthetic representation of the job structure by type of job, level of competence, functional unit, and level of responsibility. Before the modelling procedure can be explained, some of the terms frequently employed in describing it need to be defined.

A. Definitions

3. There are two groups of terms that need defining:

- the first group relates to the professional requirements, for example: qualifications, responsibility and skills;
- the second relates to the job specification, for example: occupation, function, post and job.

As there are no universal standards, the definitions proposed are necessarily only conventional.

(1) Professional requirements

4. The term professional requirements is deliberately used as broadly as possible in view of the existence of various, equally valid ways of viewing and grading them. It denotes not only knowledge and technical skills but also the responsibilities that go with the job and the qualifications a person must have to perform the corresponding tasks within the enterprise.

(2) Job specification

5. On the other hand, it is vital to define from the outset the precise meaning to be given to the second group of terms used for modelling the job structure and in the later phases of the management and development of human resources. For the purposes of this study, the word occupation means a homogenous body of skills quite independent of the context in which they are used.

Table 1

EXAMPLE: OCCUPATION

In referring to the occupation of mechanic, we will disregard the context and the conditions under which that occupation is pursued, i.e. whether in a port maintenance workshop, as a member of a machine-tool maker's production team or as an independent contractor.

The information on the occupation must be applicable in all these circumstances, while being specific and precise with regard to the technical skills required.

6. The term function is applied to a sub-entity of an organization with uniform objectives. It could also be defined as "a set of organized, structured and complementary tasks which are carried out by persons or groups and contribute to the achievement of the objectives of the organization in which they work" (see the above-mentioned UNCTAD study on "The principles of modern port management and organization").

Table 2

EXAMPLE: FUNCTION

In a port, the "storage" function is composed of tasks carried out by checkers, classifiers, warehouse workers, security guards, etc., assigned to a particular warehouse (see the above-mentioned UNCTAD study).

More generally, in most businesses the principal functions are as follows: production or operational, technical, financial, commercial and human resources.

7. The notion of a post is a very specific one of great importance to this study. A post means a set of activities and responsibilities entrusted to someone within the specific framework and context of a given enterprise. Within that enterprise a post may be held by one or by several persons. For example, there can be only one head of human resources but there may be several berth foremen. Moreover, the same job title may conceal a difference in responsibilities between one enterprise and another (the head of human resources in a port may also be responsible for internal communications, unlike his opposite number in a large insurance company which has a separate communications manager).

8. In order to analyse the job, it is first necessary to examine the actual posts. Thus, the posts must be studied in depth in order to establish the human factor requirements.

Table 3

EXAMPLE: DISTINCTION BETWEEN POST, FUNCTION AND OCCUPATION

Each of the various port directorates has a directorate secretary and a number of secretaries. At port level, there are two posts, both of which may be held by more than one person, namely the directorate secretary post and the secretary post. Although the holders of the posts may belong to different functions, the occupation is the same, albeit at two different levels as far as the professional requirements are concerned.

9. A job means the totality of the service and compensation associated with the offer of a situation with an enterprise or company. The services are everything that a post or a person contributes to the enterprise or company. The compensation is the counterpart in remuneration and benefits granted by the enterprise to the employee in return for his contribution. Aggregate employment means the total number of jobs in the port.

Table 4

EXAMPLE: JOB

- The job description of a travelling crane operator should specify:
  - the work content of the job and the professional requirements (services);
  - the working conditions and the remuneration (compensation).
- The notice concerning vacancies to be filled by internal recruitment should be similarly formulated.

It is essential to understand and keep in mind the precise meaning of these terms in order to follow the rest of this study.

B. The modelling process

10. Modelling involves three stages:

- determining the qualifications needed for the posts or the professional requirements (in terms of skills, training and responsibilities), irrespective of the function or occupation;

- then grouping the posts according to the functions and occupations exercised within the port entity;

- representing the whole of the port by means of post matrices, i.e. tables in which the columns show the type of occupation or function and the rows the qualifications or level of responsibility.

Table 5

ILLUSTRATION: TABLE SHOWING THE POST STRUCTURE OF A PORT

Level of qualifications or responsibility	Function or occupation, e.g. operational function					
	Director	Berth foreman				
Highest	X					
...						
Middle		X				
...						
Most basic						

By reference to the boxes in which the occupations and the qualifications or levels of responsibility intersect it is possible to localize and differentiate the posts and hence the port's personnel requirements.

(1) Determination of qualification levels

11. The inventorying and forecasting of the human factor requirements of ports must be based on the actual post structure as it exists within the various functions. It is therefore necessary:

- to choose from the complete manning table the most representative posts, whether held by one or a number of individuals;

- to analyse them in order to describe them as accurately as possible;

- to identify the professional requirements for each post, which will then serve as criteria for evaluating the relative importance of the posts and arranging them in hierarchical order.

In this way it is possible to obtain classes (or grades) of homogenous posts, all functions and all occupations combined, and to assemble the first elements needed to model the port personnel requirements structure.

(a) Identification of the most representative posts

12. Identifying the most representative posts might seem to be a simple task. It would appear to be sufficient to make an exhaustive list of the existing posts, choose those which are representative and verify their representativity by assimilating to each of them the other comparable posts. In reality, considering the risk of omissions and errors of assimilation and differentiation, this delicate and demanding task of capital importance for everything that follows should be entrusted to a committee of in-house experts perfectly acquainted with the organization and functioning of the port. This committee should take care to avoid assigning different names to posts with the same content or, conversely, identifying essentially different activities and responsibilities with the same post.

Table 6

EXAMPLE: DISCREPANCY BETWEEN THE TITLE AND THE REALITY OF A POST

- Different names may be given to what is in fact the same post:
  - head of human resources
  - personnel manager
  - labour relations manager
- The same title "head of service" can be variously qualified to indicate differences in the actual duties involved:
  - head of service, wages
  - head of service, maintenance
  - head of service, customer relations

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13. In some cases, even the complete and explicit title may not be enough to determine whether the post is specific or classifiable with other posts. In these circumstances it is necessary to analyse the content of the post in-depth.

(b) Post analysis and description

14. Post analysis and description involves assembling, for each post, the following information:

- the task or general mission;

- the scope and dimensions of the post, i.e. typical facts and figures, where available, quantifying the activities and responsibilities of the post so that its importance may be determined;

- its place (at level N) in the hierarchy and organization of the port, in particular the titles of the posts occupied by the immediate superior (N+1), by colleagues (N^1), and by subordinates (N-1);

- where appropriate, the reason or reasons for the existence of subordinate posts, to determine the managerial requirements of the post;

- the immediate context in which the duties of the post are performed, their inherent difficulties and the stakes involved;

- the general way in which the post functions, i.e. the nature and extent of the duties;

- the expected results or objectives, in order to determine the essential services rendered and the major specific contributions of the post or the principal components of the value added.

15. This information is needed to establish what a post really involves. It is used to identify the nature and the level of the professional requirements. This makes it possible to compare one post with another and provides a reference point for recruitment, the assessment of the holder of the post, the control of internal mobility, the identification of candidates' training needs, improvements in the organization or distribution of responsibilities, establishing "who does what", etc. It is at the core of human resource management and development in ports. Its importance cannot be overestimated. By way of example, Annex 1 offers a complete description of the post of Director of Human Resources of a National Port Board.

(c) Identification, evaluation and grading of posts according to the level of professional requirements

16. There are several methods, reliant on different criteria, of identifying the professional requirements of a post, evaluating its importance relative to other posts and grading all the posts in hierarchical order. The principal criteria employed are based on the skills required, the ability to solve problems, the contribution made to the operation of the enterprise, and the complexity of the tasks to be performed. Each of these criteria or groups of criteria can be graduated. Post evaluation consists of identifying the level of each corresponding criterion or group of criteria. It is a judgemental decision which is the more objective the more it is taken collectively. It is therefore strongly recommended that post evaluation be entrusted to a committee.

17. Once the global level of the post has been identified in accordance with the various criteria established, it is relatively easy to group posts of equivalent level and arrange those groups in hierarchical order.

Table 7

ILLUSTRATION:

GRADING OF POSTS IN DECREASING ORDER OF LEVEL OF QUALIFICATIONS OR PROFESSIONAL REQUIREMENTS

GRADE	POST TITLE
E	Manager, container terminal, Head of computerization project Manager, lifting machinery Head of executive management unit
D	Ship call supervisor Welfare officer Computer programmer Launch skipper
B	Assistant Accountant Warehouseman Switchboard operator Cold storage operative Electrician Statistician
B	Security guard Data input clerk Cablemaker Launch mechanic
A	Watchman Messenger Apprentice

This completes the first stage in the modelling of the port's human factor requirement structure, making it possible to establish the qualification level of the posts to be filled. Subsequently, at each level, the posts will be differentiated and distributed or segmented by occupation group or simply by function.

(2) Posts grouped by occupation and by function

18. The second stage involves establishing the families of occupations or broad functions that exist in the port so as to enable the posts to be grouped. The simplest and most direct method of differentiation is to determine the families or functions from the port's existing organization chart.

Table 8

EXAMPLE:

GROUPING OF THE PORT'S ORGANIZATIONAL UNITS (DIRECTORATES, DEPARTMENTS, SERVICES, ETC.) UNDER FIVE MAIN FUNCTIONS

FUNCTION	UNITS GROUPED
1. Operational	- Handling and operation of machinery - Warehousing - Security - Pilotage - Towage
2. Technical	- Tools and equipment - Infrastructure
3. Development	- Commercial - Development and diversification - Statistical and economic studies - Organization and information technology
4. Administration	- Bookkeeping, finance and treasury - Legal service - Tax department
5. Human resources	- Personnel - Employee welfare - Port training centre

19. Grouping the posts by occupation is more difficult. The data needed to combine posts into homogenous occupational groups are not directly available. It is first necessary to identify the principal occupations pursued in the port and establish their dominant characteristics, which can then be used as criteria for grouping posts according to their duty and skill content (technical and behavioural aptitudes required). It is for each enterprise and each port to establish the occupational group typology according to its internal mobility management requirements. This typology may partially correspond to the breakdown by functions. Nevertheless, even if this is so, the occupation table never resembles the function table: the different uses to which the information is put call for different post grouping principles.

Table 9

EXAMPLE:

DISTINCTION BETWEEN TWO POST GROUPING METHODS:
BY OCCUPATION AND FUNCTION

The person in charge of social statistics in the human resources directorate and the person in charge of commercial statistics in the marketing department are both in the same family of occupations.

On the other hand, the person in charge of customer relations in the marketing department and his commercial statistician colleagues in the same department belong in different families of occupations.

The secretary posts, dispersed through the function table according to the department or directorate to which they belong, are brought back together in the same family of occupations in the occupation table.

20. Whereas grouping posts by function makes it possible to diagnose the qualities of an organizational structure, grouping by occupation is more useful for internal career guidance purposes. Consequently, it is indispensable to carry out both groupings separately. Combined with the qualification levels, these groupings enable the port's personnel requirements to be pin-pointed.

C. Summary tables

Once all this information has been collected, it will be possible to draw up tables with the grades forming the rows and their distribution by occupation or function the columns.

21. These tables serve as a means of listing the staff corresponding to each post or category of posts, depending on the data analysis and processing requirements. In all cases they make it possible to obtain the necessary information systematically, rigorously, exhaustively and with precision, by qualification level and by occupation or function.

Table 10

ILLUSTRATION:

FUNCTION TABLE OR PORT POST STRUCTURE BY FUNCTION

1 = Operational
2 = Technical
3 = Development
4 = Administration
5 = Human resources

GRADE	POSTS	FUNCTION				
		1	2	3	4	5
E	Manager, container terminal	X		X		
	Head of computerization project		X			
	Manager, lifting machinery		X			
	Head of executive management unit					X
D	Ship call supervisor	X				
	Welfare officer				X	
	Computer programmer			X		
	Tugboat captain	X				
	Superintendent of works		X			
C	Accountant				X	
	Warehouseman	X				
	Switchboard operator				X	
	Cold store operative		X			
	Electrician		X			
	Statistician			X		
B	Security guard	X				
	Data input clerk				X	
	Cablemaker		X			
	Launch mechanic	X				
	Assistant statistician			X		
A	Watchman	X				
	Messenger			X		
	Apprentice		X			

Chapter II

ESTIMATION OF THE PORT'S PERSONNEL REQUIREMENTS

22. The operational features of the tables derived from modelling the port job structure at a given period of time are essential if the human resource requirements of the port are to be estimated reliably. In order to enable these tables to be put to the best possible use, it is proposed to examine:

- the procedures for estimating the human resource requirements,
- their practical application.

A. Procedures for estimating requirements

23. Requirements are estimated in three stages:

1 - list the staff occupying the various existing posts corresponding to the port's current operating requirements,

2 - then estimate the probable post requirements in the medium term in the light of the anticipated development of the port and its environment,

3 - finally, optimize the extent of the requirements taking into account the desired productivity norms or established performance objectives, together with the constraints of national and international competition.

(1) Determination of the existing situation

24. This can be done very quickly if a centralized source of complete and structured information is available. It is then merely a question of reorganizing the information in tabular form, as described above. The tables will give the requirement structure for the period in question. If there is no centralized source of reliable information, then the data will have to be collected from the various port units, or port locations in the case of multiport national authorities. In these circumstances, to avoid inadvertent and unsuspected discrepancies, it is imperative to make absolutely clear which data are required. In fact, staff can be categorized in various ways: paid, present, permanent, casual, etc. It is essential for everyone to have the same understanding of staff categories if mistakes are to be avoided when the results are consolidated and compared.

Table 11

EXTRACT FROM THE TABLE OF PAID STAFF, BROKEN DOWN BY FUNCTION, OF A REGIONAL PORT FORMING PART OF A NATIONAL PORT SYSTEM EMBRACING ALL THE PORTS ALONG THE COASTLINE OF A DEVELOPING COUNTRY

1 = Operational 2 = Technical 3 = Development
4 = Administration 5 = Human Resources

GRADE	POST	FUNCTION				
		1	2	3	4	5
E	Manager, Container Terminal	5		3		
	Head of Computerization Project					
	Manager, Lifting Machinery		4			
	Head of Executive Management Unit					1
D	Ship call supervisor	15				
	Welfare Officer				2	
	Computer Programmer			5		
	Tugboat Captain	8				
	Superintendent of Works		12			
C	Accountant				3	
	Warehouseman	10			2	
	Switchboard Operator					
	Cold Store Operative		3			
	Electrician		6			
	Statistician			2		
B	Security Guard	20				
	Data Input Clerk				6	
	Cablemaker		9			
	Launch Mechanic	10				
	Assistant Statistician			3		
A	Watchman	2				
	Messenger			2		
	Apprentice		3			

(2) Medium-term forecast

25. On the basis of this inventory, staff requirements can be projected three or five years into the future taking into account the probable evolution of the economic, social and technological environment. The projection will also incorporate the port's medium-term action plan. When available, the social balance sheets and the human resource management reports of the previous five years will be a source of facts and figures of the utmost value. The aim

is to establish the main probable trends in the future development of the port's activities, in volume and in nature, and to determine their effects on jobs. These may be of five kinds:

- staff reductions,
- the disappearance of certain posts or even occupations,
- changes in the content of certain posts,
- the creation of new types of jobs,
- an increase in certain categories of personnel.

Based on the tables obtained by modelling, the forecast should result in the numerical calculation of needs by function, occupation, and level of professional requirements.

26. Depending on the source of information taken as a reference, the procedure will involve:

- identifying or defining the posts necessary to implement each strategic choice or policy of the medium-term plan,
- extrapolating the indicators derived from the social balance sheets and human resource management reports for the previous five years in the light of the trends established.

If these sources of information are not available, the forecasting of the port's requirements will be based directly on the anticipated evolution of the port environment.

27. Although the description of the methods of forecasting the future activities of the port lies outside the scope of this study, it may be worthwhile mentioning the principal stages:

- begin with a review of the previous five years emphasizing the main trends and their impact on port employment,
- project three or five years ahead in order to confirm or question and supplement these trends.

The general idea is to get off to a good start by founding your forecasts on retrospective studies, which are relatively easy to carry out.

Table 12

ILLUSTRATION:

CONCLUSIONS CONCERNING EMPLOYMENT TRENDS IN A CENTRAL PORT ADMINISTRATION

The outlook for the port environment and organization points to:

* a roughly 25% increase in general activity by volume over five years,

* a stable range of activities,

* the introduction of new technologies in every sector (operational, technical, management, etc.) with the development and maintenance problems which that implies,

* efforts to improve the quality of the services provided,

* a strengthening of the commercial and marketing function,

* a special emphasis on the security of goods and premises and recognition of the need to take the "quality of the environment" into account.

None of this involves any disruption of the port occupations. However, there will be a need for development and optimization of the port organization.

(3) Optimization of requirements

28. In assessing requirements on the basis of forecasts of future trends in port activities and the port environment, the stress has been laid on the quantitative aspects without consideration of the costs. It is now necessary to seek the optimum level, that is to say to determine the level "necessary and sufficient" to these requirements.

(a) Ends and means

29. In this stage of the process, the priority must be to make the port structure no more cumbersome than strictly necessary so as to maintain operational flexibility, control costs, especially labour costs, and thus preserve or improve the competitiveness and growth potential of the port, taking into account the constraints imposed by the availability of resources. It also requires that provision for additional equipment go hand in hand with a constant search for greater productivity. These are the aims and purposes of optimizing the assessment of the port's human factor requirements.

(b) Procedure

30. To achieve these ends, the job structure must be reorganized before the staff requirements are determined:

- by trying to optimize the grouping of tasks, activities or responsibilities within the posts, in particular those with many occupants and those involved with developing trends, mainly by diversifying the tasks and encouraging versatility,

- by broadening existing posts rather than creating new ones,

- by analysing, with reference to the post structure as a whole, the implications of predictions concerning the creation or abolition of posts and anticipated reductions or increases in staff.

At the end of this process, it will be necessary to update the tables described above with allowance for the new functions and occupations and the corresponding personnel requirements.

B. Practical application

31. The needs assessment measures must be supplemented by practical considerations which will also be useful later in the process, in particular when the resources have to be inventoried and brought into balance. These considerations concern:

- the range of post tables and their utilization,

- the active participants in the needs assessment process and their role,

- the simplified implementation of the needs assessment and the time required.

(1) The range of post tables and their utilization

32. The final result of the estimation of requirements will be expressed in the form of a series of tables representing the structure and extent of these requirements from different points of view for multipurpose utilization:

- global situation,

- by function,

- by occupation,

- by site.

33. The global situation table is the result of consolidating the function or occupation tables for the various port locations or establishments. It makes

possible a macroscopic approach to the actual situation prevailing in the port and provides guidance for those responsible for making medium-term strategic choices relating to employment within the organization.

Table 13

EXAMPLE:

USEFULNESS OF THE GLOBAL POST TABLE

For the port as a whole, strengthening the supervisory personnel directly in charge of the workers and clerical staff could have a decisive influence on the outcome of port development measures.

The extent and importance of this requirement may be overlooked if it is broken up among the various establishments or functions.

The global situation table will bring it into prominence.

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34. The table of posts by function can be used to test the validity of the existing organization. It enables the staff of one unit to be compared with that of another, either globally or by category. It can also be used to detect overmanning and undermanning and to locate weak spots, anomalies or poor performance and make the appropriate adjustments.

Table 14

EXAMPLE:

USEFULNESS OF THE TABLE OF POSTS CLASSIFIED BY FUNCTION

When the needs assessment is being optimized, the function table will reveal any overestimation of the need for secretaries in the technical department as compared with the other departments.

---

35. The table of posts classified by occupation offers guidance for those who have to make internal mobility decisions. It provides the main underpinning for the forward management of jobs and careers, since the occupational structure is more permanent and more durable than the organizational structure represented by the function table. The latter may change radically from one year to the next and, indeed, even within the same year.

Table 15

EXAMPLE :

SPECIFICITY OF THE OCCUPATION TABLE AS OPPOSED TO THE FUNCTION TABLE

The internal communications sub-function, which forms part of the Human Resources Directorate, could be grouped with the external communications sub-function and placed, like the latter, under the authority of the Commercial Manager.

This restructuring would lead to a change in the function table without having any effect on the occupation table.

36. The amount of information to be collected and processed is so massive and the calculations and sorting operations involved so numerous that it is almost impossible to envisage the work being done manually. Suitable computer equipment and software are indispensable, particularly once the port has begun to employ several hundred people.

(2) The active participants in the needs assessment process and their role

37. Whether for the purposes of the initial needs assessment or for its optimization, the advantages of extended consultation are obvious.

This consultation process is organized in two stages and at two levels:

- in the first stage and at the first level, an internal expert group is set up. It should include, in addition to the central director of human resources and his equivalents from the most representative regional establishments, senior operational and functional staff chosen for their familiarity with the organization and activities of the port and its history,

- in the second stage and at the second level, the operational and functional hierarchy is fully and systematically consulted: from the director general to the foremen via the various intermediate managerial levels. Depending on the context and the implications of the needs assessment, the consultations may be extended to include bodies representing the staff and outside experts.

38. The expert group should be small and active so that it can operate efficaciously, carry forward its planning and bring its deliberations to a successful conclusion, while arranging, organizing and exploiting the necessary consultations. It is also important that the particular competence of the various sources to be consulted should be well-defined so that their contribution can be well-informed, effective, timely and enlightening. Thus, the director general of the port could give the group the benefit of his views on how the activities of the port may be expected to develop. In the absence

of an explicit formal medium-term action plan, he could indicate the strategic and policy factors that should be taken into account in the three- or five-year forecast. Although it may often be difficult for him to lead the expert group personally, he should provide the necessary guidance and encouragement not only for the group but for all those involved in the exercise.

39. At the various levels of responsibility, the operational and functional hierarchy holds extensive information on the staff and thus is well-placed to understand the personnel requirements of the different units. It is therefore essential to recruit it as an ally. The bodies that represent the staff are another valuable source of information on the realities of the situation in the port, in human and social terms. However, because of their institutional role, it is not always easy to obtain their active and constructive participation.

40. In the case of more developed or advanced ports, outside experts or top-flight international specialists, with their experience and knowledge of the world's port systems and their medium-term forecasting abilities, can often be of great assistance where forward planning to meet port labour requirements is concerned.

Table 16

ILLUSTRATION:

RESULTS OF A FORWARD PLANNING STUDY OF THE LABOUR REQUIREMENTS OF A NATIONAL PORT BOARD IN A DEVELOPING COUNTRY

The outlook for the organization is as follows:

- Stabilization of staff levels over the period 1990-1995 after 10 years of steady decline: the organization has reached a certain point of equilibrium that marks the beginning of a phase of optimization and highly specialized segmentation of its structure.

- A differentiation of occupations favouring the progressive diversification and raising of qualifications:

  . which must be incorporated in the human resource management and new-recruit integration policies,

  . which appreciably strengthens the role of the central management and its impact on the organization,

- a progression of qualifications in all occupations reflected in a 20% decline in the number of unskilled jobs (grade A), stabilization of the number of low-skill jobs (grade B), and a considerable increase in the numbers of skilled jobs (grade C) and jobs for technicians or supervisors (grade D) and engineers or managers (grade E).

Table 16 (continued)

- as the authority is not increasing in size, the number of senior executive posts will remain constant, except for the introduction of specialized functions, in particular in central management,

- despite the considerable increase in the number of supervisory jobs (grade D), staffing levels are still too low, which could disrupt operations,

- new occupations are emerging mainly in the commercial, information technology and technical departments, at the professional level (engineers).

Administrative staffing levels are in slight decline, but still very high when computerization is taken into account.

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(3) Simplified model of the needs assessment exercise and implementation schedule

41. In practice, this is a three-stage process:

- first, analyse, describe and evaluate the posts and make a small-scale model of the port job structure consisting of a limited number of representative posts,

- then trace similarities between the other posts and the reference posts forming the sample so as to be able to assign all the posts in the port to the various tables that have been drawn up,

- finally, list and assess the personnel requirements on the basis of each table.

42. The function table will be helpful, but the occupation table should be given preference since, as mentioned above, it is less subject to fluctuations. Depending on the size of the port, the existence and availability of human resource data, the competence of those engaged in the exercise and their involvement, the assessment of personnel requirements could take from three to six months.

Chapter III

INVENTORY OF AVAILABLE HUMAN RESOURCES AND COMPARISON WITH REQUIREMENTS

43. The precise and detailed establishment of the human resources situation in the port in relation to the short- or medium-term requirements or job supply is a two-stage process:

- list the existing resources,
- compare them with the immediate and medium-term requirements.

A. Inventory of resources

44. Listing the human resources of the port involves four steps:

- counting the existing staff (quantitative determination),
- qualitatively assessing these resources to identify characteristics such as age, length of service, educational level, ability to perform present duties, and potential for advancement in the same post or to other posts or higher levels of responsibility,
- consolidating these individual data as they are collected in order to construct a global and sectoral profile of the port's human potential,
- calculating the resources available in the medium term (in three or five years) taking into account foreseeable departures.

(1) Counting the existing resources

45. In counting the staff in post in any particular year, the segmentation established for job structure modelling purposes should be respected. The various function and occupation tables will provide the necessary framework. For port authorities of a certain size (employing around 3,000 to 5,000 people) or dispersed among several geographical locations, centralizing the work, though involving a risk of temporarily overstraining the central services, offers the advantages of greater cohesion and reliability. Delegating the task to the various locations requires, firstly, that those concerned be well-informed of what is involved and properly trained and, secondly, effective coordination accompanied by rigorous follow-up and fine-tuning measures.

46. As with the inventory of requirements, it is of the utmost importance to define the category of staff to be counted, since the term "staff" is open to various interpretations: the staff authorized under the outline law, the enrolled, paid, permanent or temporary staff, the staff present, etc. Depending on the type of bookkeeping practised and the means and data available, each port will choose the most appropriate method, subject to the

possible later application of certain formulas or correction coefficients to find the staff present, which can be obtained directly by subtracting from the paid staff all those who are absent, however remunerated.

(2) Identification of the characteristics of existing resources

47. Qualitatively, the port's human resources are characterized by:

- on the one hand, established facts such as age, length of service and level of training,

- on the other hand, assessments such as present capabilities in relation to those required for the post held, potential for advancement in the same post or to other posts or other levels of responsibility.

The personal files will provide the first batch of information, while the second will come from the appraisal of the performance of those concerned.

48. Thus, in order rigorously to determine the capabilities and the potential of the human resources of the port as a whole or by staff category it is first necessary to assess each individual, consolidating the results only in the final phase of the operation. This is a delicate task and should be carried out in accordance with the best professional practice in order to spare susceptibilities while still delivering reliable results. Where annual interviews are held to discuss performance and the practice has been in existence for some time, the data they produce could be used to assess the port's human potential. Otherwise it will be necessary to arrange for each employee to be appraised by his immediate superior. For the purposes of this operation, there is absolutely no need to know the names of the staff. On the other hand, no one should be left out.

49. Specifically, the heads of each unit, who best know the individual members of the organization placed under their charge, are asked to:

- draw up a list of all the posts in their unit,

- indicate how many people hold these posts, without giving their names,

- obtain the first batch of characteristics, possibly from the personal files of each post-holder,

- make out a record for each post-holder in the manner indicated below,

- forward the information to the central human resources service responsible for processing the data.

Table 17

ILLUSTRATION:

FORM FOR RECORDING THE AGE, LENGTH OF SERVICE AND INITIAL TRAINING LEVEL OF PORT PERSONNEL

NO.	POST	YEAR OF BIRTH	YEAR OF RECRUITMENT	INITIAL TRAINING LEVEL

50. The employee is rated in accordance with the following criteria:

- present capabilities:
  - . mastery of the job (three levels: poor, adequate, good),
  - . performance (five levels: from very poor to excellent).

Table 18

ILLUSTRATION:

INVENTORY OF RESOURCES BY POST IN TERMS OF PRESENT CAPABILITIES: MASTERY OF JOB AND PERFORMANCE

NO.	POST	MASTERY OF THE JOB			PERFORMANCE				
		1	2	3	1	2	3	4	5
1	Equipment operator "a"	X				X			
2	Equipment operator "b"			X				X	

- potential for advancement:
  - . within the same occupation (three levels: none, fair, good),
  - . to another occupation (state which),
  - . to a higher level of supervisory responsibility (yes or no).

Table 19

INVENTORY OF RESOURCES BY POST IN TERMS OF POTENTIAL FOR ADVANCEMENT: IN THE SAME POST, TO ANOTHER POST OR TO A SUPERVISORY POSITION

NO.	POST	SAME POST			ANOTHER POST	SUPERVISORY
		1	2	3		
1	Operator (a)	X				NO
2	Operator (b)			X	Technical	YES

51. The goal is a reliable qualitative, collective (i.e. no names) and sectoral assessment of the port's human resources. It should not have any effect whatsoever on individual pay or promotion prospects. These are determined in much more exacting, more detailed and more appropriately structured performance appraisal interviews.

(3) From individualized data collection to global data processing

52. In practice, the port's human resources are qualitatively assessed in two stages:

- first, collect the personal data and assess them individually to verify their completeness, accuracy and objectivity, as far as possible while maintaining anonymity or, failing that, confidentiality,

- then, process the data to determine the size of the groups of individuals fitting the same observations and thus establish the principal characteristics of the port's resources.

53. Data aggregation consists of grouping into categories all those sharing the same characteristic, on the basis of the information gathered in the individualized data collection process.

Table 20

EXAMPLE:

Identify the employees whose capabilities are superior to those required to occupy their present post so as to determine the proportion of the port's staff with potential for advancement.

54. These data are processed in aggregate and bulk form with the strictest respect for anonymity. The aim is not to spot talent, but simply to determine and analyse the principal qualities of the port's human resources taken as a whole, to compare them with requirements and to make plans for adjustments in terms of categories and sectors, not individual posts.

55. Summary tables will provide the necessary information on the principal characteristics of the port's human resources by listing the staff and indicating the proportion of those who have been found by their superiors to have:

- capabilities currently inferior, superior or appropriate to the requirements of their present post,

- poor, average, excellent or no potential for advancement in their present post, to another (other) post(s) or to a higher level of supervisory responsibility.

Table 21

ILLUSTRATION:

EXTRACT FROM SUMMARY TABLE SHOWING ONE OF THE PRINCIPAL CHARACTERISTICS OF THE PRESENT CAPABILITIES OF THE PORT'S HUMAN RESOURCES: MASTERY OF THE POST

GRADE	NUMBER OF STAFF	MASTER OF THE POST			PERFORMANCE				
		1	2	3	1	2	3	4	5
G	4		1	3					
F	64	1	36	27					
E	218	24	119	75					
D	127	20	68	39					
C	1 324	244	700	380					
B	933	185	464	284					
A	902	412	359	131					
Total	3 572	886	1 745	939					
%	100%	25%	49%	26%					

56. Other tables, supplemented by graphs, will provide information on:

- the age distribution by function and occupation, together with approaching retirement peaks,

- for the whole of the port's human resources, the extent to which the initial training level matches or deviates from the level of qualifications required to ensure the smooth functioning and growth of the port,

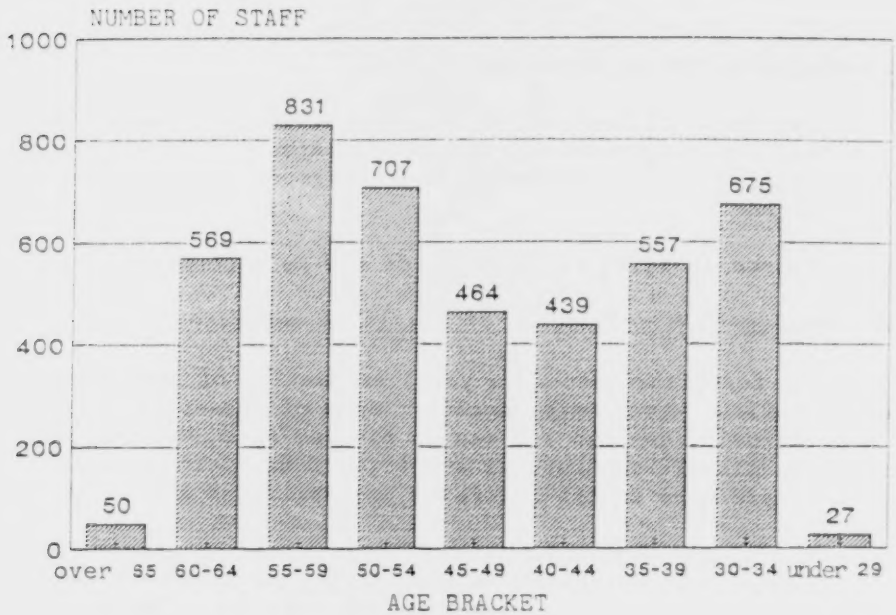
- the degree of aging or turnover of the port population.

(4) Medium-term estimation of available resources

57. The medium-term (three-to-five year) estimation of resources will take departures of various kinds into account. Some of these, retirement for example, are virtually certain and can be planned for. Others, such as resignations, dismissals and natural attrition (death, long-term illness, etc.), are more in the nature of probabilities and can be estimated statistically.

58. The job structure tables used for modelling requirements make possible a medium-term assessment of resources either for each port (by qualification level, occupation or function) or on a global basis.

AGE PYRAMIDS



CUMULATIVE TRAINING LEVELS

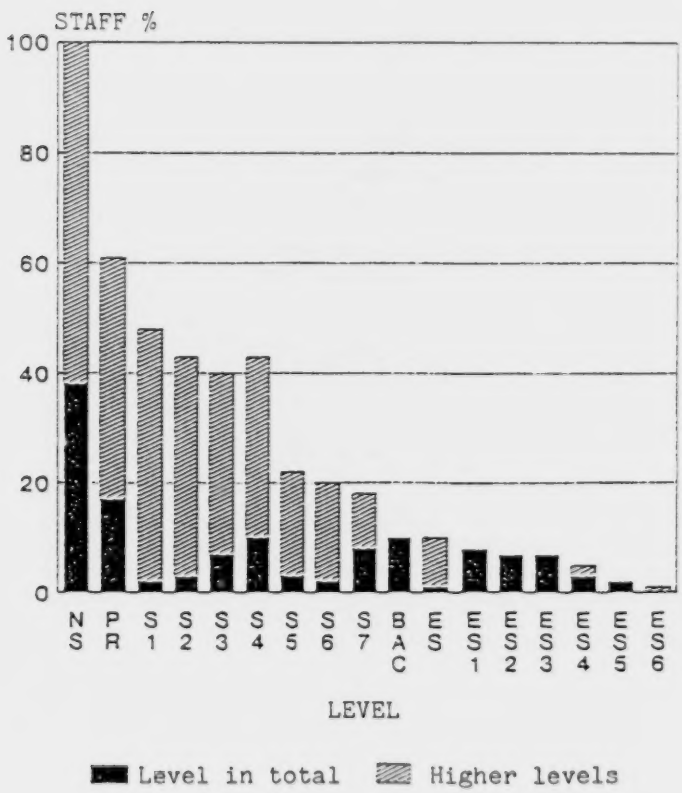


Table 22

Percentage of the port population having reached this training level	Percentage of the port population having a higher training level

ILLUSTRATION:

ESTIMATION OF THE DEVELOPMENT OF THE EXISTING RESOURCES OF A PORT AUTHORITY

(a) Source and hypothesis:

The numbers retiring, by grade, occupation, geographical location and year, can be established from the data held in the central records office.

As for the other, probable departures (resignations, dismissals, etc.), a retrospective study of the previous five years will have yielded a single ratio (other departures/total staff) varying between 6 and 7% over five years or between 1.2 and 1.4% per year.

For the purposes of the study, this ratio will be applied uniformly whatever the grade, occupation or port.

(b) Global results:

* Departures of all kinds will reduce staff numbers by about 1,100 over the coming five years.

* This reduction will be unequally distributed among the various ports:

  - port 1 = 680 (around 30% of the staff)
  - port 2 = 80 (around 30% of the staff)
  - port 3 = 60 (around 30% of the staff)
  - .....

* It will have the greatest impact on grades:

  A (436 people), B (326) and C (237)

* It will mainly affect the following families or sub-families:

  - Operational = 734 (around 30% of the staff)
  - Technical = 165
  - Financial = 144

* It will affect the following occupations:

  - Equipment operator = 200
  - Chief docker = 69
  - Harbour pilot = 40

Table 22 (continued)

* Retirement will be responsible for two-thirds of the reduction. The situation is favourable in two respects:

  - The age pyramid indicates that there will be far fewer departures in the next 10 years,

  - The departures can be foreseen with a very high degree of reliability sufficiently far in advance for preparations to be made to deal with the new situation as it arises.

(c) Analysis by occupation:

Branch	Retirement	Other departures	Total
. Operational	575	159	734
. Technical	105	60	165
. Financial	88	56	144
. Human Resources, Admin.	3	7	10
. Information Technology	0	5	5
. Commercial	0	3	3

The total shortfall is mainly made up of the shortfalls for the Operational (65%), Technical (17%) and Financial (13%) branches respectively.

In relation to the staff of each branch, the shortfall varies from more than 40% for the Commercial and Information Technology branches to 12% for the Financial-Management and Human Resources-Administration branches.

The Operational branch will have to make good 30% and the Technical branch 20% of its resources.

In the Operational and Technical branches, grade D will have a shortfall equal to half the jobs in that grade.

Table 22 (continued)

(d) Analysis by grade:

Grade	Retirement	Other departures	Total
F-G	2	6	8
E	5	16	21
D	23	10	33
C	139	98	237
B	248	78	326
A	354	82	436
Total	771	290	1 061

Almost two-thirds of the total "natural" shortfall can be ascribed to grades B and C alone, being shared fairly evenly between them. However, the reasons are different: a considerable increase in the number of grade C jobs, on the one hand, and a high rate of retirement from grade B, on the other.

The grades B, C and E will have turnovers of 30 per cent, 20 per cent and 26 per cent respectively. Grade D will need to renew half of its resources.

(e) Analysis by location:

Port	Retirement	Other departures	Total
1	451	152	603
2	105	37	142
3	0	4	4
4	25	9	34
5	51	15	66
6	0	10	10
7	63	21	84
8	69	29	98

Among all the ports, port No. 1 will record the most departures, namely 61 per cent (51 per cent of the port authority's total staff). This will be accompanied by an increase in its activities.

B. Comparison of resources available with identified requirements

59. Comparing the port's available resources with its requirements will bring discrepancies to light thus enabling them to be corrected. The aim is to ensure continuity of operation and improved performance by matching the post and its occupant at all levels in accordance with the port's strategic objectives.

60. In locating and measuring such discrepancies the following must be taken into account:

- the number of departures by grade, occupation family and, where appropriate, by geographical location,

- the results of the analysis of levels of competence or performance and potential for advancement,

- the consequences of the foreseeable general rise in the initial training level and the restoration of a balanced age pyramid.

61. The process involves three stages:

- comparison of the human resources under static conditions (i.e. excluding internal movements) with the port's medium-term requirements,

- incorporation of the internal staff movements predictable from the potential for advancement of the port's existing resources,

- allowance for the effects of the rise in initial training level and the restoration of a balanced age pyramid.

(1) Static comparison

62. In making a static comparison it is assumed that nobody will change grade, occupation or unit for the next five years. Only departures of all kinds are taken into account. The job left vacant by each departure is not filled. The shortfall or surplus will express the difference between the port's available resources and its requirements at a given point over the medium term. This gives an idea of the global situation uncorrected for, in particular, internal promotion and external recruitment policies.

(2) Incorporation of internal staff movements

63. The objectives are:

- to satisfy, as far as possible, the employees' career and development aspirations,

- to redeploy resources after all departures to adjust them to requirements,

- to maintain the dynamism of the organization by providing opportunities for mobility.

64. The resource profile changes once the notions of internal mobility and upward and downward deviations of the skills or performance of the worker relative to the requirements of the post have been introduced.

There are three main ways of providing internal mobility:

- promotion, or vertical mobility,
- switching between posts at the same level, or horizontal mobility,
- a change of post or even occupation combined with promotion, or diagonal mobility.

The comparison between resources and requirements should take these three possibilities into account.

(a) Incorporation of vertical and diagonal mobility

65. When the port's resources are assessed, the staff is divided into three groups according to their potential for advancement in the same occupation: none (1), significant (2), and strong (3). From this information it is possible to deduce the movements attributable to vertical mobility:

group 1: no promotion to the next higher grade

group 2: promotion to the next grade for part of the resources

group 3: systematic promotion to the next higher grade.

As far the population of group 2 is concerned, two different hypotheses may be applied:

hypothesis 1: the five-year promotion rate is 25 per cent of the staff with average potential for advancement. That is, one promotion on average per employee in the course of his career (20 years),

hypothesis 2: the promotion rate for these people is 50 per cent, or three promotions on average per employee in the course of his career.

66. The vertical mobility scenarios are constructed by means of several successive simulations which change hypotheses and progressively incorporate increasing numbers of parameters. These simulations are based on the principle that in filling vacancies promotion is systematically given precedence over external recruitment.

67. The first series of simulations measures the opportunities for internal promotion generated by posts falling vacant, without taking geographical or professional mobility into account.

Once all the departures have been deducted, the shortfall in resources relative to requirements will open up prospects of promotion for the lower grades. This simulation makes it possible to determine the optimum number of promotions that can be offered, bearing in mind that every promotion to a higher grade creates an opening in a lower grade. The simulation does not take into consideration the availability or unavailability of resources with the potential to fill the vacant post. It represents the most favourable case (optimum opportunities), on the assumption that the enterprise is able to control all these movements and has sufficient potential at its disposal.

68. The analysis starts out from the predicted shortfalls, after all departures, at each level of qualifications or in each grade. These shortfalls represent opportunities for promotion for the lower grades. Each promotion to a higher grade (C+1) displaces the shortfall by one grade, thus opening up an opportunity in that grade (C) for someone with the necessary potential in the grade below (C-1). If there is a surplus in one particular grade, then clearly there can be no promotions to that grade from the grade below unless promotions from the grade with a surplus to the next higher grade transform the surplus into a shortfall.

69. The aim of the second series of simulations is to determine the internal promotion requirements as a function of the potential for advancement of those in post. In other words, taking into account the estimated potential for advancement, how many promotions should be offered in the medium term, for example over the next five years. These simulations are slanted towards the candidates with potential for promotion. It is assumed that every potential identified merits promotion to a higher grade. The new distribution of resources by grade which results makes it possible to detect and measure any deviations from the port's future job structure and employment situation.

70. In a third series of simulations the problem of balancing the port's resources against jobs or requirements is approached from a strictly realistic angle. These simulations begin by identifying the opportunities and provide for promotions only to the extent that vacancies exist in the next higher grade.

(b) Incorporation of horizontal mobility

71. When the port's human resources were assessed, the individual potential for switching into other occupations was accurately identified. These data provide the basis for horizontal mobility. Mass transfers of personnel within the port from one branch of activity to another may be decided upon in connection with radical reconversion or diversification projects. However, they remain exceptional and require special treatment. Normally, horizontal mobility has only a limited and random impact on the comparison of needs and resources. It can be taken into account using the same iterative method of successive simulations as for vertical mobility.

(3) Allowance for the effects of raising the initial training level and stabilizing the age pyramid

72. A far-sighted port authority, anxious to dispose of resources that will enable it to pursue its development in the medium- and long-term, must:

- progressively raise the level of basic training to meet the standards prescribed, in accordance with the needs previously defined in the forecast of employment and requirement trends,

- take steps to bring the age pyramid back into balance in the various grades and occupations.

(a) Allowance for the effects of raising the initial training level

73. The measurement of the impact of a rise in training level on the port's resources is based on hypotheses concerning the staff benefiting from this training.

Table 23

ILLUSTRATION:

HYPOTHESIS CONCERNING THE RISE IN INITIAL TRAINING LEVEL ADOPTED BY A CENTRAL NATIONAL PORT BOARD

Abbreviations:

PR = primary education;
S2 = 2nd year of secondary education;
S7 = 7th year of secondary education;
SSLC = secondary school leaving certificate;
HE2 = 2nd year of higher education, i.e. SSLC + 2;
HE4 = SSLC + 4.

General hypothesis

Level	S2	S7	HE2	HE4
Cumulative %	70%	40%	15%	7%

A goal (cumulative percentage) is fixed for each of these four reference or sensitive training levels. Thus, in order to comply with its overall plan, the organization needs to have 40% of its staff at level S7 (7th year of secondary education) and 15% at level HE2 (SSLC + 2).

Table 23 (continued)

Application of the general hypothesis

Grade	PR	S2	S4	S7	HE2	HE4	Total
A, B (lowest level)	75	60	10				100
C	100	80	50	20			100
D	100	100	80	50	30	10	100
E, F (highest level)	100	100	100	90	60	50	100
Total %	79.9	37	9.35	2.6	1.3	0.8	100

This hypothesis breaks down the required training level distribution by grade. In grade D, 80% of the population must be at a level at least equivalent to S4 and 30% at a level at least equivalent to HE2 (SSLC + 2).

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74. Comparing the hypotheses adopted with the situation as it stands makes it possible to design the training and external recruitment policy. The following elements should be taken into account:

- possible percentage deviations, by grade,
- numerical deviations, which underline the "effort" that must be made.

(b) Allowance for bringing the age pyramid back into balance

75. The object of bringing the age pyramid back into balance is to ensure the future continuity of operation of the port in terms of occupations and qualification levels. The result should be an optimum distribution of the population among the various age groups.

76. The analysis comprises two stages:

- in the first, a theoretical staff distribution is established by forward projection of the existing age pyramid,
- in the second, the staff flow is studied over a five-year period taking into account the staff "mobility rate" (or employment cycle) by age group. This approach leads to greater staff flows in the age groups with high mobility rates, since it will be necessary to find replacements.

This scenario makes it possible to detect overstaffing or the need for recruitment in certain age groups.

(4) Final results

77. A final synthesis comparing the port's available human resources with its requirements provides the basis for drawing up adjustment plans for the next five years.

Table 24

ILLUSTRATION:

RESULTS OF COMPARING A PORT'S RESOURCES AVAILABLE IN THE MEDIUM TERM WITH ITS REQUIREMENTS EXPRESSED IN JOBS

The period from 1990 to 1995 will be characterized by a high retirement rate of 17% which will be responsible for two-thirds of the resource shortfall. This situation will not persist beyond 1995. The other kinds of departure remain confidential (7% of workforce over five years); they could reasonably be expected to reach 10% over five years on average. Nowhere is there a significant surplus of resources relative to jobs.

The manpower shortfall over five years will amount to 1,100, including 680 at the most important location alone.

Grades B and C (clerical staff and skilled workers) account for two-thirds of the total shortfall. The percentage shortfalls will be greatest in the most rapidly developing occupations: Information Technology and Commercial (40%) and in the branch with the greatest number of retirees: Operations (30%).

Subject to a rigorous appraisal of the potential of subordinates by their superiors, the qualifications and levels of performance of 50% of the staff are considered to be consistent with the requirements of their post. At the same time, those of one quarter are considered to be superior to and those of the remaining quarter inferior to requirements.

One employee in five has an excellent potential for advancement, and three out of five some potential, which is an encouraging but nevertheless demanding situation.

As compared with post requirements, the educational level indicates shortfalls in basic training at primary level (1,200 people), in higher vocational and technical education to diploma level (300 people) and in higher education (80 people).

Higher education need not systematically extend to engineer level (SSLC + 5); the higher technical level (SSLC + 2) will often be sufficient. Such training makes for better continuity between technician and engineer.

The ports in small cities and the central administration have the highest basic training levels; conversely, big city ports lag behind in this respect.

Chapter IV

ADJUSTMENT OF RESOURCES TO REQUIREMENTS

A. Examples of problems encountered

78. The problems most frequently encountered are as follows:

- permanent coexistence of overstaffing and overloading within the same department,
- gap between the qualification levels of new recruits and the requirements of the department,
- wave of departures among those with high potential because of the lack of prospects for advancement,
- heavy expenditure on training well in excess of the annual budget without a significant improvement in the general level of qualifications and performance.

79. The quantitative and qualitative comparison between the human resources of the port and its requirements will reveal positive or negative deviations at both global and sectoral levels. If there is an overall surplus of resources relative to requirements, redundancy schemes should be prepared. Where sectoral surpluses are concerned, it may be possible to redistribute resources by taking advantage of internal mobility. Redundancy schemes generally raise legal problems. These differ from country to country and lie outside the scope of this study, which deals only with shortfalls in resources relative to requirements and, secondarily, with sectoral surpluses where redundancies can be avoided. Within these limits, adjustments will enable the port to provide itself with the necessary resources and redistribute them according to its requirements. The mechanisms used for making these adjustments are internal mobility and external recruitment. These involve numerous iterations leading to schemes for matching resources with requirements. It is therefore necessary to examine in turn:

- the means of adjustment, their respective advantages and requirements,
- the procedure for preparing adjustment plans.

B. The means of adjusting resources to requirements

80. In the presence of a shortfall, in order to adjust the human resources of the port to its requirements a choice will have to be made between external recruitment and internal mobility and the relative importance of each established. The two possibilities should be closely examined before a reconciliation procedure is adopted. Recruiting people from outside to meet the needs of the port means depriving those on the inside of opportunities for professional advancement. On the other hand, filling vacancies with people already on the staff means foregoing the opportunity of introducing new skills

and fresh minds. The search for the optimum solution calls for a more thorough-going analysis of the advantages and disadvantages of each of the two sources of supply.

(1) External recruitment

81. By means of external recruitment the port absorbs into the organization people from different backgrounds. In so doing it must take care:

- to satisfy, to the best of its ability, its short-term and especially medium-term requirements,

- to consider the opportunities for new recruits to progress, both when organizing the internal mobility of the port and when examining the potential of the candidates,

- to avoid contracts of employment being terminated suddenly or at short notice.

In this respect, the needs assessment measures recommended will be of great assistance, in particular:

- the precise description and evaluation of the posts with specification of the nature and level of the professional requirements,

- the systematic medium-term projection of requirements and optimization of the estimates.

82. The advantages of external recruitment include the contribution of supplementary skills and fresh minds, subject to rigorous and careful selection. At port level, leaving aside the casual dock labour hiring system, which deserves a separate study of its own, recruitment should take into account:

- the candidate's suitability for the post, which presupposes an accurate knowledge of the requirements of the post to be filled and a reliable procedure for identifying the skills and aptitudes of the candidate,

- the foreseeable trends, both quantitative and qualitative, in port requirements,

- the recruit's career within the port,

- the advantages and disadvantages, risks and opportunities of external recruitment as opposed to internal promotion.

83. The requirements of the post will be known only if there is close collaboration between the recruitment specialist and the heads of the units concerned. The latter must describe, as specifically and succinctly as possible, the duties attached to the post and what the port expects of the occupant. From this description the recruiting officer must then deduce the corresponding requirements in terms of technical qualifications and conduct. All this may seem obvious, but how often has not the recruitment process

failed because the supervisor's request was too imprecise as regards the content of the post or overloaded with information on the qualifications required. The risk is all the greater in so far as the recruiting officer relies exclusively on these data to attract and select candidates.

84. If it is to contribute to the development of the port's human resources, each recruitment must be examined in a context that extends beyond the moment of recruitment and the immediate requirements of the vacancy to be filled. A career in the port services may last up to twenty-five or thirty years or, on average, between ten and fifteen years. In a few decades, the duration of the technological cycle for port equipment (cranes, machinery, etc.) has gone from ten or twenty years to five or ten. The operational systems are periodically reviewed, as are the corresponding posts. Thus, every new recruit will inevitably change post several times in the course of his career. These considerations bring into focus the extent of the impact of good or bad recruitment procedures on the long-term efficiency of the port. The question of internal mobility must be taken into account right from the moment of recruitment and the candidates selected accordingly.

85. In short, recruitment does not serve only to provide the port with the staff it needs to function, it also helps to enrich the port through the efficient development of the human resources it will require in the short and medium term.

Table 25

ILLUSTRATION:

RECRUITMENT POLICY RECOMMENDATIONS FOR MATCHING RESOURCES WITH REQUIREMENTS OVER A FIVE-YEAR PERIOD

There are 1,000 vacancies to be filled.

The decision to recruit has been preceded by an examination of the potential of the internal resources available with a view to offering adequate opportunities for promotion.

The majority (70%) of the vacancies are for unskilled or low-skill workers (grades A and B), i.e. posts for which, in the long term (by the year 2000 and beyond), there will certainly be much less demand. Recruitment must therefore take into account the prospects for internal (promotion) and external (turnover and retirement) mobility.

Success will depend on the satisfaction of three conditions:

- detection of potential for advancement to a higher grade (C or D),
- recruitment of candidates with long and solid experience,
- allowance for a proportion of departures.

Table 25 (continued)

The recruitment policy is slanted towards the specialized and new occupations in order better to exploit market opportunities and/or improve adaptability. The requirements of these occupations represent the majority of openings in the higher grades.

Disregarding the special circumstances connected with the large number of retirements, the Board's policy should be characterized by:

- no recruitment of candidates incapable of occupying a post of at least grade B in the medium term,
- recourse to the outside market for specialized occupations to maintain the port's level of technical competence and competitiveness,
- differentiation of recruitment in terms of careers (managerial, supervisory, etc.),
- maintenance of the port's ability to compete in the labour market (to avoid the premature departure of good recruits),
- no recruitment without a preliminary systematic analysis of the internal resources available.

The implementation of the plan for 1995 will involve "mass recruitment" to fill 868 vacancies in grades A and B and a more individualized approach where the 67 vacancies in the higher grades (D and E) are concerned.

Recruitment into grades D and E is normally handled by the central directorate of human resources. The corresponding average rate of recruitment is one per month.

Recruitment into the other grades is decentralized at establishment level, although the most important location alone accounts for 72% of the volume. At the initiative of the central directorate, this mass recruitment of low-skill workers may be subjected to a formalized selection procedure.

Recruitment planning is controlled by the central directorate.

With an eye to the long term, in order to reconcile a declining trend in the number of staff with the maintenance of a balanced relationship between the various age groups, candidates of very different ages will have to be recruited: 748 born after 1965 and 299 born before 1950.

The recruiting plan will make it possible to raise the level of basic training so that it tends to the norm. It must require at least primary education and provide for 299 recruits with a technical or vocational diploma, 52 recruits with a secondary school leaving certificate and fifty or so at the SSLC + 2 to SSLC + 4 levels.

It will not enable the established norm to be reached completely and will require a training plan for 675 people (leading to a diploma).

(2) Internal mobility

86. Internal mobility is the other means of matching resources with requirements. In a number of enterprises it is given precedence over recruitment. One of the essential conditions of successful internal mobility is a well-organized internal labour market. The operating principles of this market must be defined by establishing a small number of simple well-publicized standing rules in order to facilitate, by means of the active and transparent communication of information, the free interaction of supply and demand within the port. The buoyancy of this market will encourage the various participants to resort to it actively.

87. On the supply side, transparency implies being permanently and unambiguously informed about:

- the port's strategy and organizational principles where employment is concerned,
- the port's existing posts, occupations and functions and those which are to be created or modified,
- the opportunities available to each individual to optimize his career with the port.

88. On the demand side, it is important that each employee be able:

- to evaluate his own potential,
- to take stock of his career,
- to apply for any vacancy he wishes.

89. The attraction of the market will be the stronger if all these conditions are met and the rules of posting or promotion can be relied upon and have their credibility reinforced by being scrupulously observed. The participants will be all the keener to contribute to the proper functioning of the market if the system for appraising individual performance is conducive to it.

90. Making good the shortfall in available resources relative to requirements by exploiting internal mobility, especially when accompanied by promotion, has several advantages:

- it rewards and reinforces the loyalty of staff with high potential,
- it preserves the enterprise's know-how,
- it dispenses with the period of adaptation for new recruits and minimizes the risk of failure,
- it keeps up the morale of the staff as a whole by offering concrete evidence of opportunities for promotion within the port and the recognition of individual performance.

Table 26

ILLUSTRATION:

PROMOTION AND INTERNAL MOBILITY POLICY RECOMMENDATIONS FOR MATCHING RESOURCES WITH REQUIREMENTS OVER A FIVE-YEAR PERIOD

Eight hundred and twenty five employees of the Board should profit from opportunities for promotion, that is almost 1/4 of the present population.

This figure is the result of examining the geographical and/or professional mobility possibilities and the possibilities for balancing recruitment and promotion.

The situation is one of sharp contrasts depending on:

- the grade:

in the higher grades, priority is given to the promotion of personnel with a high potential (3/4 of promotions) but the opportunities are limited (only 52% promoted). The staff in grades D and B with a higher potential for advancement have all been promoted, but only one-fifth of those in grade E.

- the occupation:

the best opportunities for the promotion of staff with a higher potential for advancement are clearly in the operational, information technology and commercial departments; however, the situation in the operational department is patchy with poor opportunities in the higher grades (D, E, F).

Opportunities are poor in the other occupations (15 to 30%), which implies professional mobility in order to obtain promotion.

It should be noted that the lack of mobility of personnel with a higher potential for advancement provides opportunities for the others, particularly in the Operational department.

The implementation of this plan implies the Board's ability to identify the best 825 candidates for promotion and to prepare them for increased responsibilities.

Personnel management should be based on the identification of the skills which are required for each job and enable performance to be improved.

C. Procedure for drawing up adjustment plans

91. The plans for adjusting the port's available human resources to its requirements by means of internal mobility and external recruitment are drawn up in stages:

- identify the various probable levels of equilibrium between internal promotion and external recruitment, as a function of the preliminary hierarchization of the needs to be met by the movement of personnel (either by internal transfer or by external recruitment),

- make clear the conditions and consequences at each level in order to steer the decision process towards the optimum solution,

- test the recommendations and define the means of implementation,

- deduce from the analysis of the various probable levels of equilibrium the guiding principles and general orientation of internal mobility and external recruitment.

92. The adjustment involves two phases:

- optimization of the level of equilibrium between internal mobility and external recruitment,

- formulation of the adjustment plan.

(1) Optimization of the level of equilibrium between internal mobility and external recruitment

93. At the global level, the shortfall in the port's available resources relative to its requirements will necessitate a total volume of external recruitment that remains strictly the same whatever the internal promotion hypotheses. Consequently, the aim must be to divide this fixed volume of external recruitment among the various grades in accordance with two contradictory criteria:

- motivation of the port staff by maximizing internal promotion, which means ruling out external recruitment into the higher grades and concentrating on the lower grades,

- introducing new skills by resorting to external recruitment, which, by contrast, is particularly desirable in the higher grades and therefore tends to restrict the opportunities for promotion to those grades.

94. It is at the level of the grades and branches of activity that these two decisions have to be reconciled. In this context, the level of equilibrium between internal mobility and external recruitment is optimized in two stages:

- define the extreme situations for these two sources of necessary manpower,

- choose more realistic intermediate situations by taking the constraints and the nature of the requirements to be met progressively into account.

(a) Extreme situations

95. A situation can be described as extreme when there is almost exclusive recourse to a single source of manpower at a time, regardless of the optimum, and indeed even without taking the conditions of reliability into account. It is unrealistic by definition. The object is to establish to what extremes the port can take one or the other means of providing the necessary human resources.

96. Two extremes are possible:

- either maximize internal promotion at the expense of external recruitment,

- or, conversely, give absolute precedence to external recruitment and neglect internal promotion.

97. The maximization of internal promotion implies filling each vacancy in the port from the resources available until stocks run out. This extreme situation is simulated for the purpose of:

- determining the maximum level of internal promotion that the port can offer,

- determining the upper limit of maximum vertical internal mobility.

98. It would be impractical to attempt to create such a situation since it presupposes:

- perfect interchangeability among the occupants of posts in the same grade,

- total geographical mobility,

- absolute fluidity between families and sub-families of occupations,

- the availability of sufficient potential candidates for promotion.

Table 27

ILLUSTRATION:

RESULTS OF SIMULATING THE MAXIMIZATION OF INTERNAL PROMOTION IN A PORT

GRADE	INTERNAL PROMOTION		EXTERNAL RECRUITMENT	
	NUMBER (1)	% VACANCIES	NUMBER	% VACANCIES
F,G	0	100	0	0
E	20	100	0	0
D	100	100	0	0
C	230	100	0	0
B	570	100	0	0
A	920	100	0	100
TOTAL	1 840	62.4	1 108	37.6

(1) Number promoted to higher grade.

In the context of the development of needs and resources, if all the potential and mobility conditions are satisfied, all the 1,108 recruits would be offered unskilled jobs, the port providing the necessary training for all its workers.

99. Giving priority to external recruitment means filling all the vacancies, without exception, by this means. There is no provision for internal promotion. This simulation serves:

- to determine the distribution of external recruitment in the total absence of internal promotion,
- to determine the maximum volume of external recruitment.

It presupposes that:

- no one can progress in his career, no matter what his potential for advancement,
- all posts left vacant by departures of all kinds are filled by external recruitment.

Table 28

ILLUSTRATION:

RESULTS OF SIMULATING MAXIMIZATION OF A PORT'S EXTERNAL RECRUITMENT

GRADE	INTERNAL PROMOTION		EXTERNAL RECRUITMENT	
	NUMBER (1)	% VACANCIES	NUMBER	% VACANCIES
F, G	-	-	20	100
E	-	-	81	100
D	-	-	125	100
C	-	-	347	100
B	-	-	357	100
A	-	-	178	100
TOTAL	0	-	1 108	100

The unskilled grade A now accounts for only 16% of recruitment (as opposed to 48% in the previous simulation).

20% of recruitment is concentrated in grades D and above. Grades B and C each receive 30% of the recruits (60% of recruitment shared between grades B and C).

On these assumptions, the rate of staff renewal in each grade will be:

24% (for grades F and G), 34% (for E), 99% (for D), 27% (for C), 41% (for B), and 21.5% (for A).

(b) More realistic intermediate solution

100. A situation is said to be realistic when it takes into account the actual constraints under which the port operates. The most significant constraints are as follows:

- the varying degrees of potential for advancement of the employees,
- the limitations on geographical mobility or the difficulties of inducing people to move, where the Board operates several ports along the national coastline,
- the difficulty or even impossibility of switching from some families or sub-families of occupations to others because of some incompatibility or a radical difference in the specific skills needed to exercise them.

101. Taking these realities of the port employment situation into account involves the successive application of "relative rigidity coefficients" in the extreme internal-promotion and external-recruitment simulations and the recalculation of the staff in each grade. As these constraints are progressively taken into account, the internal mobility possibilities will be curtailed.

102. The exploitation of the results of each simulation leads to the formulation of guiding principles and recommendations or advice with respect to internal mobility and external recruitment.

103. The incorporation of the various levels of potential for advancement into the process of adjusting resources to requirements will take into account the local inability of resources to satisfy requirements and will remove these snags by resorting to external recruitment. This simulation makes it possible:

- to determine the most probable number of internal promotions over the next five years, taking into account both the job supply or the port's requirements and the potential for advancement of the resources available at the time,

- to anticipate the staff motivation and the social climate of the port in order to decide on the necessary communication and psychological preparation measures.

Table 29

ILLUSTRATION:

RESULTS OF RECONCILING INTERNAL PROMOTION WITH EXTERNAL RECRUITMENT IN A PORT ENTERPRISE AS A FUNCTION OF THE POTENTIAL FOR DEVELOPMENT OF THE RESOURCES AVAILABLE TO MEET REQUIREMENTS

GRADE	INTERNAL PROMOTION		EXTERNAL RECRUITMENT	
	NUMBER	% VACANCIES	NUMBER	% VACANCIES
F,G	0	100	0	0
E	20	72	28	28
D	73	100	0	0
C	198	86	78	14
B	467	43	468	57
A	356	0	534	100
TOTAL	1 114	50.1	1 108	49.9

Table 29 (continued)

In this situation, only 50% of the maximum number of promotions have been awarded for lack of candidates with a suitable potential for advancement.

Over a period of five years, this situation will allow 1,114 persons to be promoted, i.e. 71.4% of those with a strong potential for promotion and 30% of those with an average potential. In other words, in the best case this port will not be able to satisfy all the promotion expectations of those with potential.

90% of external recruitment is concentrated in the lower grades A and B. The positive and dynamic aspects of the outside contribution (as far as the infusion of new blood is concerned) are negligible. Only 15% of grade E staff will have been turned over by 1995.

For the populations of grades C and E:

With regard to both the prospects for advancement of the employees and the development needs of the organization, the optimum conditions are satisfied, subject to the acceptance of geographical mobility. Geographical mobility should pose more problems in grade C than in grade E.

For the population of grade D:

Prospects for advancement are not lacking, provided that geographical mobility is accepted. Nevertheless, the potential for advancement falls slightly short of the needs of the organization.

For the population of grade B:

Same comments as for grade D, although the geographical mobility problem is more acute.

For the population of grade A:

The requirements in grade B are extensive enough to satisfy the expectations of those with potential in grade A. It is therefore desirable:

- to specify precisely the requirements in grade B, especially in terms of the posts available and the conditions that must be met (skills possessed) in order to fill them,

- to enrich the duties of the posts in grade B to make them more attractive to candidates in grade A.

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104. The constraints on geographical mobility make it necessary to minimize the possibilities of resorting to internal promotion in order to fill vacancies in a port enterprise with several port locations dispersed along the national coastline. This simulation serves:

- to determine the impact of geographical rigidity on internal promotion,

- derive the guiding principles applicable to geographical mobility.

It presupposes:

- no promotion between port locations,

- total interchangeability of employees of the same grade at the same location.

Table 30

ILLUSTRATION:

RESULTS OF RECONCILING INTERNAL PROMOTION WITH EXTERNAL RECRUITMENT IN A PORT ENTERPRISE AS A FUNCTION OF THE POTENTIAL FOR DEVELOPMENT OF THE RESOURCES AVAILABLE TO MEET REQUIREMENTS

GRADE	INTERNAL PROMOTION		EXTERNAL RECRUITMENT	
	NUMBER	% VACANCIES	NUMBER	% VACANCIES
F, G	0	100	0	0
E	20	52	50	48
D	55	100	0	0
C	179	83	88	17
B	440	42	463	58
A	333	0	510	100
TOTAL	1 027	48	1 111	52

Without geographical mobility the possible promotions amount to 1,027, i.e. 87 fewer than the maximum obtained taking only the potential for advancement into account.

The promotion rate for staff with strong potential for advancement falls by 11% with 63.7% promoted. The impact on those with average potential is less pronounced (6% fall).

87% of recruitment is concentrated in grades A and B, only 5% corresponding to the higher grades (from D up). The positive effects of the infusion of new blood will be limited.

There is to be no external recruitment into grades D and F-G, whereas in grades A and B more than half the staff will be replaced with new recruits.

105. The port's ability to offer its staff internal promotion is limited by the difficulty of passing from some families of occupations into others. A simulation will help to establish the right balance between internal promotion and external recruitment. It presupposes:

- total mobility in the sub-families of occupations,
- the maximum of possible promotions within the same family of occupations,
- rigidity of promotion from one family of occupations to another.

Table 31

ILLUSTRATION:

RESULTS OF RECONCILING INTERNAL PROMOTION WITH EXTERNAL RECRUITMENT IN A PORT ENTERPRISE WITH ALLOWANCE FOR THE DIFFICULTY OR EVEN IMPOSSIBILITY OF SWITCHING BETWEEN FAMILIES OF OCCUPATIONS

GRADE	INTERNAL PROMOTION		EXTERNAL RECRUITMENT	
	NUMBER	% VACANCIES	NUMBER	% VACANCIES
F, G	0	100	0	0
E	14	35	60	65
D	32	83	27	17
C	135	58	205	42
B	286	38	394	61
A	246	0	421	100
TOTAL	713	39	1 108	61

The occupation constraint has a significant impact on the numbers promoted:

- 63.1% of the staff with strong potential will have an opportunity for promotion, i.e. 52 fewer than the optimum obtained by taking into account only the constraints imposed by the potential for advancement.
- 17.4% of those with average potential will be promoted, i.e. 280 fewer than in the previous case.

Table 31 (continued)

This constraint mainly affects the staff with average potential whose promotion rate drops by 40%.

Grade A accounts for 40% of external recruitment, as against 6.5% for grades D and E.

Only 35% of the vacancies in grade E are filled by internal promotion.

The promotion of staff with strong potential restricts internal mobility and involves only 350 people (out of 617) over a period of five years.

Recruitment into grade A now accounts for only 21% of total recruitment, while grades D and above represent 9.2% (including 6.2% in grade E).

This simulation favours the infusion of new blood into the decision-making grades.

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106. Difficulty in switching between certain sub-families within families of occupations constitutes the extreme of rigidity, where the work is highly specialized. Despite being fairly unrealistic, this simulation is useful for determining the lowest level of supply of candidates for internal promotion. In addition to the assumptions of the previous simulation, it presupposes rigidity of promotion between sub-families within the same family of occupations.

(2) Preparation of plans for adjusting the port's human resources to its requirements

107. The preparation of plans for adjusting the port's human resources to its requirements involves, on the one hand, internal mobility and, on the other, external recruitment. In seeking the right balance between these two approaches, it will be necessary to obtain for each:

- the guiding principles

- the lines of action for the implementation of the plans.

The purpose of the guiding principles is to facilitate the choice of strategies and to provide a framework for coherent and incisive action.

Table 32

ILLUSTRATION:

SOME GUIDING PRINCIPLES OF THE RESOURCE/REQUIREMENT ADJUSTMENT PLANS OF THE CENTRAL BOARD OF A REGIONAL PORT SYSTEM IN A DEVELOPING COUNTRY

Correlation between internal promotion and external recruitment

In defining policy and managerial tactics in relation to one of these two approaches it is necessary to take into account the choices made and measures adopted in relation to the other. There is a direct interaction between internal mobility and external recruitment.

Career advancement aspect of recruitment

It is imperative to give thought to the opportunities for advancement of new recruits within the port at the time of hiring, in terms of candidate profile and job supply. To ensure successful and cost-effective recruitment, it is preferable to avoid recruiting candidates with a potential for advancement incompatible with the opportunities available in the port.

Priority of internal promotion over external recruitment for occupations specific to ports

When providing the necessary human resources in occupations specific to the port care must be taken both:

- to expand the collective know-how, while encouraging progress by building bridges between these specific occupations and the rest so as to enrich skills and develop polyvalence,

and

- to consolidate and stabilize know-how and make it consistent, while reinforcing the motivation of each member of the staff by offering prospects for career advancement and promotion.

Facilitation of change and sectoral reactivation by external recruitment with an infusion of new blood

When the port needs new skills and/or fresh ideas, preference should be given to external recruitment. Innovative policies will take effect more rapidly after an injection of new blood.

Equivalence of promotion based on expertise to promotion based on supervisory responsibilities

Establish and develop career paths leading to positions with high-level expert status in parallel with those leading to senior supervisory posts.

Table 32 (continued)

SOME LINES OF ACTION

Give preference to the recruitment into the higher grades of young graduates with SSLC + 5 (or SSLC + 4 plus some initial experience).

An infusion of new blood is particularly desirable at this level of qualifications and responsibilities, especially when the shortfall in this grade cannot be totally made good by internal promotion for lack of potential for advancement in the lower grades. On the other hand, for the population of this grade there is almost no further prospect for vertical advancement. New recruits at this level should be put through a cycle of horizontal career moves.

This integration process is aimed at expanding spheres of competence by building bridges between different families of occupations. At the same time as providing career opportunities, it gives a better understanding of the enterprise, spreads know-how, strengthens relations between the various services, etc.

Develop horizontal mobility as a career path

Improving horizontal mobility within a particular grade will be all the more necessary the fewer the vacancies or opportunities for promotion.

Establish a rigorous system of evaluation and identification of the potential for advancement within the port

The lack of opportunities for advancement within the port is partly the result of a mismatch between the potential for advancement identified and the posts vacant. The aim is to make the process of identifying potential as objective as possible in order to exploit to the full the port's possibilities for maximum advancement. Requirement criteria must be defined for each type of post. The potential for advancement is identified by comparison with these criteria.

Recruit into the lowest grades at higher levels of initial training (between two and four years of secondary education)

Raising the level of these grades depends heavily on recruitment. It is imperative to recruit people with a minimum level of training so that they can move up into a higher grade. There are numerous opportunities for vertical promotion available to grade A that cannot be exploited for lack of potential for advancement.

Arrange for the systematic advertising of vacancies within the enterprise

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Chapter V

IMPLEMENTATION OF A PORT HUMAN RESOURCE DEVELOPMENT POLICY

108. The development of human resources is more than just a course of action and a coordinated set of measures. It is, above all, a state of mind, a purpose, a strategic choice which permeates every aspect of the port's relations with its personnel: recruitment, integration, supervision, allocation of tasks, remuneration, assignments, transfers, promotion and training. In every case, the development of the port's human resources must take into account:

- the point of view of the enterprise and that of the employee,
- the economic aspects and the social aspects,
- the collective interest and the interests of the individual.

109. The risks of conflict and contradiction are both many and constant.

Clearly:

- the interests of the employee are not always the same as those of the enterprise,
- granting social concessions sometimes makes it necessary to abandon economic ambitions and vice-versa,
- if individual behaviour is not properly coordinated, the collective potential of the port may suffer and the consequent chronic dislocation could lead to general regression.

Table 33

EXAMPLE:

MUTUAL INCOMPATIBILITY OF ECONOMIC AND SOCIAL ASPECTS

- Excessive social security or fringe benefits could drive up the port's costs and prevent it from being internationally competitive,
- On the other hand, too much chasing after productivity by cutting staff and squeezing benefits runs the risk of an irreversible deterioration in the social climate leading to strikes that cost everyone dear.

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110. Nevertheless, these apparently incompatible choices can supplement each other and interact positively. The aim in developing the port's human resources and the indispensable condition for long-term success is to take a grasp on both problems simultaneously and make them converge.

Table 34

EXAMPLE:

THE CHALLENGE: DUALITY AND COMPLEMENTARITY OF THE OBJECTIVES OF DEVELOPING THE PORT'S HUMAN RESOURCES

- Recruitment should meet the port's needs for suitably qualified staff as quickly and cheaply as possible (port's viewpoint: economic and overall efficiency requirements), while ensuring that each recruit is properly integrated and has prospects for advancement within the port (consideration of the interests of the individual and the social dimension).

- The objective of leading a team is to achieve the results expected (port's viewpoint: economic purpose), while allowing for each man's problems (employee's viewpoint: individual approach) and creating a good working atmosphere (collective and social aspect).

111. Remuneration provides an illustration of these twin purposes. In this area the freedom of action of the port managers is often restricted by the outline law drawn up by the competent ministries. At the same time, remuneration is often a controlling factor. It is at the heart of the compromises and solutions by convergence mentioned above. The best level of remuneration is that which satisfies both employer and employee, both economic and social requirements, and both the individual and the collective. There is much at stake: from the survival of the enterprise to the contentedness of the individual employee.

112. Before any decision or action is taken with respect to remuneration, even within the limits of the outline law, it is first necessary to answer the fundamental question of "what to remunerate" before turning to the questions of "how" and "how much". Is length of service to be remunerated? Or the diploma or, more generally, the initial training level? And what about the family situation, the unmarried and the married with children? Age? Skills and aptitude? Effective contribution? Working conditions? Even though incomplete, this list reflects the ambiguity of remuneration practices and shows how right and necessary it is to determine precisely that for which the port is paying.

113. The factor to be remunerated in order to mobilize skills and encourage the development of potential is the individual contribution to the functioning and progress of the port. This is measured in terms of the individual participation in the results achieved by the port and in the solution of its problems. There are several ways of quantifying such contributions and determining the appropriate reward.

114. Moreover, everybody in the organization must be treated fairly, that is to say that the same measures and the same rules must apply to all, and no one category of staff should be penalized or favoured a priori relative to the

rest. Furthermore, to secure the loyalty of the more able members of the staff, the port's remuneration policy and practices should be attractive to job seekers.

115. As for the implementing of the port's human resource development policy, it must fit within the framework imposed by the need to match resources with the identified requirements and the increasingly pressing obligation to secure the active allegiance of the entire staff and its involvement in the realization of the port's ambitions and economic objectives. It is a question not only of the skills, abilities and potential of the employees in relation to the needs and general strategy of the port, but also of their motivation and the social climate, which determine the possibilities of mobilizing and applying those skills and deploying and expanding that potential.

116. On the management side, the participants fall into two categories: supervisors and human resources specialists. Although each of these categories has its own specific part to play, their close cooperation is indispensable to the development of the port's human resources. The supervisors have a direct and fundamental impact on the motivation and on the development of the skills of the staff working under their authority.

117. The specialists of the human resources function assist them by providing the means, methods and support needed to facilitate their task and by organizing training in the necessary disciplines. The specialists assume responsibility for programmes that affect the whole of the staff, in particular professional development and training. These they organize on the basis of the information they receive from the supervisors or obtain directly from the personnel.

118. This chapter will deal mainly with these two types of development of the port's human resources:

- decentralized development at supervisor level,
- centralized development in the hands of the specialists.

A. Decentralized development at supervisor level

119. As far as the decentralized development of human resources is concerned, there are two decisive influences:

- supervision and leadership,
- the regular appraisal of performance and potential.

(1) Supervision and leadership

120. A good share of the responsibility for developing the port's human resources lies with the supervisors who are there to motivate, lead and manage the group of staff placed under their authority. Their exercise of that authority will have a decisive influence on the economic success of the port and the deployment of its human potential. At the same time, every supervisor

has his own style. It is therefore a question of establishing the broad principles that guide the choice and adoption of appropriate attitudes, thereby enabling the supervisor to succeed in his vital but difficult role, and of improving the cohesion of the port hierarchy in this respect.

121. Above all, leading a team means mobilizing the skills of its members to accomplish all the tasks assigned to it by the organization. This mainly involves:

- establishing objectives and norms,
- drawing up and implementing action plans,
- explaining to the team the job to be done,
- listening to everyone and giving them guidance,
- assessing the results,
- encouraging and developing skills,
- creating and maintaining an effective and productive atmosphere of dialogue and cooperation and good interpersonal relations.

With these tools at his disposal, the supervisor may tend either to concentrate on the results of the work to the detriment of the members of the team or, conversely, concern himself mainly with the team to the detriment of the work. The challenge is to strike a balance between these two tendencies.

122. Supervisors can be divided into groups characterized by different types of behaviour:

(a) <u>The demanding supervisor</u>:

. he gives clear-cut instructions or rather orders, precise as to how the job should be done but with no explanation as to why,

. he does not take into account the opinions or preferences of the members of his team,

. he keeps a close eye on the work as it is being done,

. he penalizes any failure,

. he considers good work to be normal and never expresses any appreciation or approval.

This attitude may be justifiable in a crisis or emergency. It is encountered where work must be done to strict specifications and even minor deviations from a standard may lead to serious problems. In the long term, it induces passivity, rebelliousness or various forms of evasive behaviour in the

members of the team. It will be ineffectual and may even be counterproductive where the team needs to display initiative or a capacity for innovation. It is not good for developing potential.

(b) The authoritarian supervisor:

- he gives clear and tactful instructions and takes most decisions himself,
- he listens to the ideas and opinions of his team members and explains the reasons for his decisions and the why and wherefore of the instructions he passes on,
- he influences the members of the team by showing them where their interests and those of the organization lie,
- he supervises the work without undue fuss,
- and he knows how to deal out both praise and criticism.

This style is necessary where the results of the activity become apparent only in the long term and where clear guidance is required. It presupposes that the members of the team recognise that their supervisor knows his job. It does not imply development of the human potential unless the supervisor includes that among his goals.

(c) The understanding supervisor:

- He is less interested in giving clear and precise instructions than in the working conditions, material and psychological, and the welfare of his team,
- he does everything he can to avoid disputes,
- for appraisal purposes he relies more on individual characteristics than the actual result,
- he endeavours to make himself popular and finds it hard to criticize.

This style is effective when the work "takes care of itself", when the team knows its job and the working atmosphere is good. It should be adopted where the members of the team need temporary personal assistance and coordination. On the other hand, it should be avoided where the members of the team are not up to scratch or an emergency or crisis calls for precise guidance. Incidentally, in these circumstances a normally understanding supervisor often becomes demanding, because he has no other way of bringing the situation under control.

(d) The democratic supervisor:

- he has the members of his team participate in the decision-making and prefers to manage by consensus,
- he organizes meetings in which everyone can have his say,
- he seeks decent results without always pressing for "that bit extra" and penalizes failure only in extreme circumstances.

For this attitude to be successful the team must be good at its job and must share its information with the supervisor. It will be especially appropriate where the team's activities require a great deal of coordination. Nevertheless, there is the risk of too much time being spent on meetings and consultations of various kinds: care must be taken to ensure that they are effective and short.

(e) The egocentric supervisor:

- he has a tendency to do everything himself and regards himself as the example to follow,
- he sets himself high standards in line with his personal criteria and finds it hard to delegate, because he thinks he can do better than those who work under him,
- he will not tolerate poor or middling results and gives his team few opportunities for development or advancement.

This style is perfectly appropriate when the members of the group can work each on his own without the need for coordination, especially if they are competent and well-motivated. If team spirit, downloading by delegation and the development of potential are what counts, this attitude should be avoided.

(f) The leader of men:

- he helps his team members and shows them how to get better results,
- he seeks opportunities for his team to develop and grow and encourages them to set their own objectives and establish their own plan of action,
- he is the driving force behind the optimization of individual skills.

For this style to succeed, the supervisor must specify exactly how the results are to be measured and invite his team members to follow their own progress and assess for themselves whether the objectives have been achieved. It presupposes a determined team capable of showing initiative and ready to advance in their profession.

123. There is another approach which, by probing deeper into the relations between manager and managed, distinguishes between three different management attitudes:

- The impositional or military style is characteristic of the manager who regards his subordinates as simple executants more or less obliged or constrained to do what he orders them to do. Going by the book, citing of the rules and the use of moral or physical coercion are the attributes of this style of management.

- Playing off the opposing forces one against another is the technique used by the manager aware of the heterogeneity of his subordinates considered as individuals capable of allying themselves with or opposing each other and/or him according to the circumstances. For him, managing means knowing how to "handle" or "manipulate" people in the neutral sense of the term. This attitude is commonly described as "diplomatic", "cunning" or even "divide and conquer".

- The inspirational style of management, based on charisma or ascendancy, is that practised by the manager at the head of a close-knit well-motivated team who regards his function as being to imbue the members of his team with the right "spirit", to give them an inspiring goal, a challenging project that will mobilize them and draw them together. He counts on their commitment to the common cause and their confidence in him personally.

None of these three attitudes is good or bad in itself. The trick is knowing how to choose and adopt the attitude or combination of attitudes most appropriate to one's partners, the task to be accomplished and the prevailing circumstances.

124. The supervisors at various levels in the different departments must be taught the different styles of supervision and team leadership in order to ensure that the human resource development policy is applied in the everyday life of the port.

(2) Regular appraisal of performance and skills

125. The regular appraisal of performance and skills is the process by which a supervisor examines and evaluates the work and potential of each of his immediate subordinates in the course of private interviews, usually arranged at annual intervals. By measuring and guiding the efforts made by each employee to contribute to the functioning of the unit to which he belongs and to advance in his career, this appraisal determines the extent to which the performance of the individual members of the staff is consistent with the success of the port strategy, the achievement of the annual objectives, and the continuous progression and improvement of the overall results. It provides the information required to make pertinent and timely decisions about the allocation, remuneration and training of personnel by carefully identifying and evaluating individual abilities and professional potential. It also provides material for the preparation and implementation of a port

individual and collective performance development programme by identifying possibilities for improvement and by motivating the employee to aim higher.

126. At the same time, regular appraisal has an important part to play in forward planning and the optimization of internal mobility:

- it provides precise, accurate, exploitable and reliable information for the evaluation of port skills in terms not only of present capabilities but also of development potential,

- it feeds and vitalizes the internal labour market.

This process involves all the members of the enterprise, appraisers and appraised. It is planned and organized within the context of an implementation programme with its own objectives, principles, rules of action, procedures and quality requirements.

127. Although such a programme is indispensable, some ports have not succeeded in introducing, generalizing, maintaining and developing one. An analysis of the principal causes of failure will help others to avoid the pitfalls. Usually, the trouble is that lacking, on the one hand, an explicit and systematic frame of reference for the work done or the post held and, on the other, suitable indicators, in particular for measuring the qualitative results to be achieved, the supervisors have a tendency to form general, subjective impressions of their subordinates. They also tend to make their appraisal hastily without talking things over with the person concerned or to engage in an ill-fated exchange of accusations and excuses between judge (appraiser) and judged (appraised). When wage considerations are uppermost and an overall rating is given, the chances of dialogue and collaboration in the analysis of the results and in the search for improvement will definitely be compromised.

128. Moreover, the procedure for informing the staff about the objectives of the system may be faulty or the supervisors may fail to make sure that the objectives and functioning of the system are clearly perceived and understood by the members of their group. A perception that the "rules of the game" are unclear or imprecise opens the door to criticism and disputes and may lead to the system being rejected or rendered inoperative as far as the development of performance is concerned. The failure will be all the more acute if, in addition to all this, the performance appraisal guide is overcomplicated and deficient.

129. The successful introduction and implementation of performance appraisal in a port depends on strict conditions, both formal and substantial, being met. In assessing results, the first principle is to refer to pertinent measurement criteria or indicators accepted by both sides. Consequently, the objectives to be achieved and the basis of measurement of performance levels should be determined upstream, beforehand and by mutual consent. These are the foundations of the performance appraisal system. If it is to be applicable, this system must be the same for all levels and all units.

Based on mutual respect, it must be designed for dialogue and objectivity. Provided that it is easy to use and the rules are clear, its credibility will be guaranteed.

130. If it is to be accepted and then to last, the general management will have to keep supporting it by strongly encouraging the supervisors to apply it, and it must also have the backing of all the members of the organization. Its application and development should be entrusted to the human resources directorate, which will make sure it is consistent with the other elements of the human resource management and development system, in particular those relating to remuneration, transfers, promotion and training.

131. The object of the system is to meet the needs and further the interests of both the enterprise and the individual. In the interest of the port, it must facilitate the process of allocation and establishment of objectives at all levels of the organization and make it possible to monitor the progress being made towards achieving those objectives, so that any necessary corrective measures can be taken. By enabling each individual's contribution to the organization's performance and his potential to be assessed objectively, it contributes to the development of reliable remuneration, recruitment and training policies and to the efficient allocation of personnel.

132. In order to satisfy the staff, the rules governing the application of the system must give everyone the feeling of being respected, appreciated and fairly rewarded. The aims and objectives of the enterprise, the role and responsibilities of each individual within the organization, what is expected of him and the criteria against which he will be judged must be clearly communicated. The system must help to establish the conditions necessary for everyone to participate in the achievement of the common objectives and the improvement of performance with full knowledge of the facts. It must enable everyone to benefit from the relevant decisions in the areas of transfer, training and promotion.

133. The in-depth solution of the problems posed calls for the following action to be taken:

- re-orient the thrust and spirit of the regular (annual, half-yearly) performance appraisal interview towards:

  . a dialogue between the enterprise, represented by the hierarchy, and each individual employee on the subject of the role or the post with which he has been entrusted,

  . an effort to improve the match between the employee and his post,

  . cooperation between hierarchy and employee in achieving the results expected of the post,

- recast the appraiser and the appraised as co-analysts of the situation constituted by the results achieved by the appraised,

- conduct the interview as a three-stage process which must be carried to completion:

  . by first analysing the situation and identifying positive and negative deviations,

  . by then establishing the causes of these deviations, which may be attributable to the occupant of the post but also to the circumstances, the organization, lack of resources, etc.,

  . and, finally, by determining the corrective action required: training, provision of resources, reorganization,

- hence avoid the unfortunate tendency to put all the blame on the employee and leave it at that, an approach which leads almost inevitably to a sterile and devastating exchange of accusations and excuses,

- as far as possible, play down the importance of the salary question as compared with the importance of cooperation, progress and performance. If need be, avoid discussing salary altogether.

134. To be specific, the system is introduced in four phases:

(1) Generalized self-description of posts:

- to initiate the process of dialogue and reflection on the role assigned in terms of the results to be achieved,

- to assist with the definition of the objectives used as a reference in the appraisal interview, and thus avoid a descent into arbitrariness and idle discussion with no proper foundation.

(2) Design of the basis of appraisal:

- to steer the interview through to the determination of the corrective action required,

- to encourage dialogue in an atmosphere of trust,

- to provide reliable information for forward planning, training and internal mobility.

(3) Training of the appraisers:

- to inculcate in them the spirit and the logic of performance management, through the monitoring or appraisal of the results achieved by their team members,

- to enable them to master the techniques, the psychology and the procedures of the appraisal interview.

(4) Informing and training the appraised:

- to acquaint them with the rules of the game,
- to demystify the process and make it transparent,
- to promote confidence and facilitate dialogue,
- to involve them in the application of the procedures adopted,
- to create a general groundswell in favour of the adoption and promotion of the system.

B. Centralized development controlled by the port's human resources function

135. The port's human resources department engages in two principal resource development activities:

- internal professional guidance and career management for all the port employees, in particular the senior grades,
- the planning and organization of training programmes.

These activities both necessitate and justify centralization because of the scope and global nature of the information to be processed and the need to ensure that the decisions and measures taken are always consistent.

(1) Internal professional guidance and career management

136. Internal professional guidance and staff career management, in particular for senior grades, are ways of developing human resources which tend to be neglected in many ports. They aim at achieving the best possible match between the post and its occupant for the good of both the port and those who contribute to its functioning and growth. They are based on the parallel identification of the professional skills required by the various posts necessary to the port's activities and the aptitudes of the human resources available. They seek to establish the closest possible correspondence between them and to arrange for them to be brought into phase. This means:

- creating and maintaining a transparent internal labour market,
- disseminating, as widely and rapidly as possible, clear, precise and reliable information concerning the availability of jobs in the port,
- making internal advertisements more accessible to and more easily understood by all the port staff or at least those most directly concerned,
- encouraging applications by ensuring the necessary confidentiality and discretion,
- providing optimum conditions for the reception, examination and selection of applications.

137. As these measures are relatively simple and easy to implement, they require a management resolved to stand behind them and a universal spirit of cooperation and concern for the common good rather than an injection of financial and material resources. The specialists in the central administration are recruitment professionals. They have at their disposal the occupation and job tables resulting from the modelling exercise described above. If need be, they will carry out supplementary analyses of the requirements of the posts to be filled and the potential of the applicants. Their role includes running a brisk internal labour market and entails not only an in-depth knowledge of the entire organization of the port but also extensive contacts with the various categories of personnel.

138. As for the individual employees, to extract the maximum benefit from the internal mobility system put in place, they must be trained and accustomed to drawing up their own skills balance sheet and defining their professional goals. They must be familiar with the latest trends in port activities and be prepared to adapt to them in the interest of greater efficiency.

(2) Training

139. Clearly, there can be no development of human resources without training, so much so in fact that the two terms have become almost synonymous and the two activities are often confused. In almost all ports, the need to invest in training is self-evident. In some countries, the authorities may go so far as to impose a minimum budget which the port cannot underspend without infringing the social legislation. In others, fairly substantial and attractive national and international subsidies are available. The real problem is how to use these funds in ways profitable for the port and beneficial to its personnel. The initial social aims of this activity are becoming increasingly interwoven with the economic objective of securing a return on investment.

140. Port managements and human resources directorates are increasingly eager to rethink the training function with a view to reshaping its role and improving its integration into the global strategy of integral development of the organization and its human potential in order to fend off the ever fiercer international competition. Accordingly, the scale, structures, organization, methods and tools of this activity are evolving rapidly. Training is being studied from three angles:

- the policy angle, to define and clarify the goals and objectives,
- the strategic angle, to determine and allocate the necessary material means and budgetary resources,
- the tactical angle, to establish the most appropriate methods of implementation.

It must be smoothly harnessed to and pulled together with the other strategic and policy functions of the port: communications, remuneration, career management, technical diversification, commercial development, economic and financial management, etc.

141. The training scheme is drawn up on the basis of various interdependent sources:

- the strategic principles of the medium-term plan or, failing that, those of the general management,

- the lessons drawn from the plans for adjusting the port's available resources to its requirements,

- the formal (and informal) views of the employees.

These sources of information can be used to identify the training requirements which are then analysed and prioritized so that arrangements can be made to satisfy them progressively over a period of time.

142. Wherever the available resources have to be matched with the port's requirements, supportive training measures will be necessary. These are aimed, above all, at helping people to move into new jobs. Essentially technical, they are selective and limited in scope. The effects are often immediate. On the other hand, the training intended to develop skills and potential to meet the needs of the port's longer-term strategy covers a broader field and may relate to behavioural aptitudes as well as technical proficiency.

143. Thus, training measures can be distinguished according to their end purpose, which determines their content, the choice of participants and the practical details (duration, methods and teaching aids):

- induction,

- integration,

- remedial course or recycling,

- courses leading to a diploma,

- preparation for promotion,

- redeployment, internal and external.

Within the context of a port's activities, the subjects taught may range from how to read and write to improving management style. UNCTAD's TRAINMAR and IPP programmes provide a suitable framework and methodology for the organization and development of these activities.

144. Finally, the forecasts of long-term requirements, both quantitative (staff numbers) and qualitative (skills, occupations, qualifications), and the assessment of the port staff's development potential make it possible to establish the populations concerned, the numbers involved, by category, the subjects to be taught and the amounts to be budgeted within the framework of the annual or multi-annual plan.

Table 35

ILLUSTRATION:

RECOMMENDATIONS FOR A PORT TRAINING SCHEME DESIGNED TO MATCH THE RESOURCES OF A PORT BOARD WITH ITS REQUIREMENTS OVER A FIVE-YEAR PERIOD

The scope of training extends beyond technical vocational training and covers:

- team leadership,
- performance management,
- development of the port culture.

The needs are identified globally and in advance as part of the forward planning process and stated individually in the annual programme.

Development is differentiated according to the needs: occupation, field, career, etc.

The training scheme has an important part to play in the improvement of individual and collective performance. Accordingly, it has close links with the performance appraisal system.

The scheme provides for 95,000 training days over a five-year period, i.e. on average 19,000 days per year, a 40% advance on the 1990 plan.

It involves more than 6,300 people, i.e. more than 1,250 people per year, approximately the same as at present.

The average duration of training shows an increase of 43%, i.e. 13.8 days for 1990-95 as compared with 9.6 days in 1990 (7.6 in 1989).

The scheme provides for 37,500 days of know-how development (technical mastery of the job) and 16,300 days of behavioural development (personal efficiency and management).

There is a heavy concentration (56% of the budget) on grades B and C, in particular to improve the Board's global qualifications level and to support the investment plan.

A quarter of the total budget (22,500 days) goes towards setting up a "nursery" for 225 people, as compared with the 620 it is planned to recruit in grades B and C.

More than 5% of the budget is earmarked for continuing basic training to diploma level, with priority for grades A to C.

Chapter VI

MEASURING, MONITORING, CHECKING AND ASSESSING THE RESULTS

145. For assessing, monitoring and updating the progress made in developing the port's human resources and its results, measuring instruments or indicators are needed. The particular nature of the elements to be measured calls for a special approach to the design and construction of these tools.

146. Cultural and sociological phenomena, such as the qualitative results of training measures or internal promotion decisions or the effectiveness of recruitment, do not lend themselves readily or directly to measurement, which is by nature quantitative. Clearly, the precise numbers and mathematical calculations commonly used by engineers have only a limited place in the field of human resources and must be treated with a degree of caution. On the other hand, non-numerical data are difficult to exploit and unreliable: in the absence of a quantitative scale it is hard to tell the difference between two assessments such as "very good" and "fairly good".

147. As regards the choice, formulation and use of human resource indicators, the challenge is:

- to be precise enough to permit tight and effective management while avoiding the rigidities of quantitative overprecision,

- to retain enough flexibility to grasp the complexity of the elements to be managed while avoiding the vagueness of impressions and suppositions.

Accordingly, this chapter will deal:

- firstly, with the basic elements, that is the indicators or measuring instruments,

- then with the human resource management report or "instrument panel", a structured system of indicators designed to ensure reliable results.

A. The indicators

148. There is a variety of human resource management and development indicators. It is important to define and classify them before considering how to formulate them.

(1) Indicator definition and typology

149. In the management and development of human resources, an indicator is defined as a piece of numerical information that measures and expresses a level or a state of the situation observed. It shows how a phenomenon or situation has evolved, makes it possible to check whether a preset level has

been reached or warns of the proximity of a critical threshold. An indicator must be precise, accurate, reliable, simple, and significative of the variable measured.

150. There are several types of indicators. Some can be used to evaluate and check results (e.g. number of persons trained) or the actions leading to those results (e.g. number of courses given). Others give a snapshot of the situation at a given moment of time (e.g. total pay bill) or reveal trends (e.g. number recruited over a given period). Indicators can be expressed in monetary units, in terms of volume or in qualitative terms, as absolute values or as relative values (ratio, rate, percentage, index), as observational data or as statistical measures (mean, median, standard deviation, etc.).

Indicators can serve as a standard or benchmark or represent a finding or reading. Whether a simple or a composite indicator is adopted will depend on the end in view and the means available.

(2) Choice and formulation of indicators

151. Choosing and formulating the indicators is a five-stage process:

- identify the precise phenomena or factors to be studied,
- break these phenomena down into observable elements,
- characterize these observable elements by means of one or more numerical values,
- select a limited number of the most representative values for each element,
- establish the procedures for collecting and processing or calculating the raw data with a view to determining the selected numerical values.

Table 36

EXAMPLE:

GLOBAL INDICATOR SELECTION AND FORMULATION PROCESS

Let us assume that the port management wishes to evaluate the pertinence and effectiveness of its policy of raising the qualifications level of its blue-collar and white-collar staff: the phenomenon to be studied is thus precisely identified.

One of the observable elements of this phenomenon is the increase in the population of blue-collar and white-collar workers who have advanced to a higher qualifications level, either within the same family of occupations or in another branch, thanks to training or simply as a result of a more rigorous assessment of their potential.

Table 36 (continued)

In this example, the numerical values characterizing the observable element are obvious: the number of people fitting the above description by activity sector or family of occupations, by initial qualifications level, by length of service, etc.

The choice of the most representative major values will depend on the priorities: by family of occupations for polyvalence, by length of service for internal promotion, etc.

It remains to define the category of personnel fitting the description: it is possible to count either the staff present or, more broadly, the paid staff.

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152. For identifying situations there are three sources of information: the medium-term plan or, failing that, the port management's strategic choices in the area of human resources, the objectives of the port's human resources function and, finally, the expressed needs of the supervisors relating to the management of their personnel.

Table 37

EXAMPLE:

MONITORING INDICATORS OF THE HUMAN RESOURCES FUNCTION

One of the major and specific objectives of the human resources function is to ensure that the social climate is favourable and the staff well-motivated.

The observable element best suited for measuring the attainment of this dual objective is the number of absentees. Nevertheless, this is a multiform parameter (absence or leave, short or long, etc.) with a variety of justifications (illness, delegation time, compensatory leave, personal unpaid leave, industrial injury, etc.) and therefore difficult to interpret.

It is necessary to establish the port's goals and centres of interest in order to choose the most representative of the numerous numerical values available for use as indicators, for example: "the frequency of gratuitous unauthorized absences".

All the port's supervisors are asked to submit reports on these absences, indicating precisely how the data were collected.

B. The human resource management report

153. The "instrument panel" for monitoring and managing the development of the port's human resources is the human resource management report, a complete ordered and structured set of indicators representing the key features of development management and resource trends in the form of tables, ratios and graphs. This serves to keep the supervisors constantly informed of the situation as it evolves. It enables comparisons to be made between the port's various units and between different periods of time and makes it possible to monitor, check, initiate and plan action in this area and assess the results. It can give warnings and detect and signal deviations from predicted values or preassigned targets. It must be prepared and circulated among the supervisors every month so that they are able to make timely adjustments.

(1) Types of report

154. Every personnel management measure is conceived with the aim of gaining an understanding of the situation and controlling developments and results with the greatest possible precision. At the same time, the subject of the measure will depend on the particular concerns and centres of interest of the port managers. For some it is labour costs that need controlling. For others it is the human potential that needs to be known and managed. In fact, there is a whole range of parameters that need watching closely: staff numbers, staff movements, the social climate, working conditions, the salary structure, the age pyramid, qualification levels, etc.

155. As a subject for measurement, the human factor may be viewed from four angles:

- demographic: staff numbers, age structure, proportion of men and women, length of service, category morphology, internal staff movements, turnover, etc.,
- economic: total pay bill, staff overheads, etc.,
- psycho-sociological: motivation, social climate, health and safety,
- technical: occupational and skill typology, aptitude levels, current abilities, potential for advancement, etc.

156. As far as personnel management is concerned, the port enterprise's requirements and its objectives are on different levels, which implies different types of "instrument panel".

157. At the first level, the traditional human resource management report will be essentially a means of establishing the facts. It will represent the structural and conjunctural phenomena irrespective of their development cycle. Most of the data are taken from the annual social balance sheet, intended essentially for making inter-enterprise comparisons at the national level and chosen more for convenience in processing than to satisfy the requirements of the port's general and operational managers.

158. At an intermediate level, the human resource management report measures the performance of the human resources function: the cost and effectiveness of the recruitment programme, the scale and impact of training measures, etc.

159. At the higher level, while still a tool for day-to-day management, it is above all an aid to strategic decision-making. No longer limited to the monitoring of costs and deviations from the norm, it is now also used:

- to optimize the results of the human resource management activities,
- to develop the general performance of the enterprise through its human resources,
- to make forecasts and engage in forward planning.

(2) Production of the human resource management report

160. The process of producing the human resource management report and promoting it as a management and strategic decision-making tool in the hands of the port managers needs careful thinking out followed by progressive step-by-step implementation.

Table 38

ILLUSTRATION:

SOME QUESTIONS TO BE ANSWERED BEFORE INTRODUCING OR OPTIMIZING A HUMAN RESOURCE MANAGEMENT REPORT

JUSTIFICATION

. "What use is the Human Resource Management Report?"

SCOPE

. "Who are the users of the Human Resource Management Report, what are their main interests?"

. "What are the main objects of scrutiny?"

PLACE OF THE HUMAN RESOURCE MANAGEMENT REPORT IN THE MANAGEMENT SYSTEM

. "What links are there between the Human Resource Management Report, the medium-term plan, the budget, the social balance sheet, etc.?"

CONTEXT

. "What are the preconditions for the use of the Human Resource Management Report?"

Table 38 (continued)

FIELDS OF INVESTIGATION AND PROCEDURE

. "What situations (fields), activities and phenomena, relating to the enterprise and its staff, need to be monitored?"

. "Using what types of units?"

. "What operations are required to produce and exploit the report?"

OBJECTIVES

. "What are the qualitative and quantitative results to be expected from the use of the Human Resource Management Report?"

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161. At operational level, the following principal measures need to be taken:

- training and consultation with the staff based on periodical production of the human resource management report and examination of the functioning of the system as a whole,
- an initial experiment or pilot project to check the validity and reliability of the system and the mode of implementation,
- final application accompanied by analyses, interpretations and recommendations and by monthly follow-up meetings with the board of management,
- improvement of the form and substance of the report in collaboration with the users.

162. It should be noted that the human resource management report:

- must be synthetic and condensed and provide only information that is necessary and sufficient, while ensuring that the changes in that information can be regularly and fully monitored,
- cannot be complete from the outset: in the early stages, it should be adapted to the customs of the organization and the information already available should be used; later, it should be progressively improved in accordance with the priorities assigned to the needs identified.

163. Success will depend to a large extent on:

- organizing regular monthly follow-up meetings, by level of responsibility,
- taking into account the complementary roles of the port hierarchy and the auditor,
- maintaining the pressure on the organization and meeting deadlines.

164. At the tactical level, it is advisable:

- to prepare a draft version of the report and involve general management from the outset in its design, introduction and promotion,
- to anticipate the obstacles and the technical and psychological challenges involved,
- carefully to define the programme of operations and the supporting communications policy for imposing the system on the port's employees,
- to keep the unit supervisors, both the data users and the data providers, permanently mobilized.

165. As far as presentation is concerned, the report will consist of:

- a set of indicator value record sheets and graphs: one sheet per indicator,
- a user's guide explaining how they should be used and containing all the indicator definitions and calculation formulae,
- an archive file holding all the periodic analyses and summaries.

(3) Interpretation of the indicators

166. The methods of formulating the indicators determine their exploitation and interpretation; conversely, the exploitation and interpretation requirements control the choice of the data incorporated in the indicators during their formulation. The definition and exploitation of the indicators are closely linked, and practice will make them increasingly precise.

167. The first function of the indicator is simply to illustrate the situation or result that it is supposed to represent. Then comes the potential for drawing attention to anomalies or critical deviations from reference values which may be:

- internal or external,
- normative,
- historical or target-based.

168. At a higher level, it is a question of foreseeing future trends and drawing conclusions in terms of recommendations or decisions or even drafting an appropriate programme of action. Some orchestration of a range of indicators will then be required to establish the necessary conditions for the interpretation of a phenomenon.

169. In addition, further processing may reveal other unforeseen implications or provide confirmation of certain conclusions or extrapolations.

Table 39

ILLUSTRATION:

EXAMPLE OF FURTHER PROCESSING FOR INTERPRETATION PURPOSES

- The classification, by reason of the frequency, number and period of claims will help to improve the analysis of the social climate.

- The classification, by degree of seriousness (15 minutes, 30 minutes, an hour, etc.), of the frequency of instances of lateness for work, the number of people late and the period will help in determining the hidden costs, slackness and demotivation.

- The classification, by level of responsibility, of the number and scale of resignations will indicate whether loss of know-how, deterioration of the working conditions or demotivation is involved.

170. The limits of interpretation are attributable to two main factors:

- the degree of imprecision of the social indicator, particularly when it expresses a value judgement or an opinion,

- the degree of correlation between the indicator and the situation represented.

C. Evaluation of human resource management and development

171. The previous chapters have dealt with the problems of devising and implementing a port organization's human resource management and development policy. This policy should be reviewed periodically, every year for example, or in connection with some special occasion: the formulation of a new development programme, a reorganization, a port audit. The review may be total or partial. In the first case, all of the measures adopted in connection with the management and development of the port's human resources will be evaluated. In the event of a partial review, it will be a question of examining the results obtained in a limited field (internal mobility, recruitment policy, etc.) with reference to the targets set.

172. To be of use, every evaluation must meet certain criteria:

- It must be objective. It is therefore advisable not to leave it in the hands of the human resources directorate alone. It is better to call in outside assistance or, at least, to set up an evaluation committee consisting of the heads of several different departments.

- It must be as quantitative as possible, since qualitative judgements are imprecise and may obscure certain aspects from view. To assist them in meeting this criterion, the assessors have at their disposal the measuring instruments provided by the indicators and the human resource management report.

- It must be rigorous and follow a logical path leading to the positioning of the concrete results obtained relative to the objectives. These are the intermediate objectives, proper to the human resource development policy, and the basic objectives, which are those of the organization. The contribution of the policy followed to the achievement of these various objectives must be examined.

- It must be constructive and therefore future-oriented. When discrepancies are found between the results anticipated (operational, economic or social) and those of the evaluation, the cause must be sought and remedial measures recommended.

- It must be reasonable. Some countries have never heard of evaluation. Others tend to evaluate too much and too often.

173. To give concrete examples of evaluation methods would be to go beyond the scope of this study. There are numerous sources of information on the subject. However, it should be stressed that every evaluation should normally lead to a specific overhaul of any element of the human resource management and development policy that is found wanting: the modelling procedure adopted, the assessment of needs, the forecasting of human resource development, or the plans for adjusting resources to requirements.

Chapter VII

FINAL RECOMMENDATIONS

174. There are 12 things that need to be done to enable the port's human resources to be exploited as strategic assets in the struggle against international competition:

(1) DETERMINE THE STRATEGIC DIRECTIONS AND POLICY CHOICES FOR THE MANAGEMENT AND DEVELOPMENT OF THE PORT'S HUMAN RESOURCES

175. Before doing anything else, the port management must establish the objective and show its determination to promote the development of the port's human resources as one of the organization's strategic priorities. It is essential to make an inventory and an in-depth analysis of the specific advantages and disadvantages, risks and opportunities of the port and its immediate and wider environment, in time and in space.

(2) STRENGTHEN THE ROLE AND THE EFFICIENCY OF THE SERVICE RESPONSIBLE FOR THE DEVELOPMENT AND MANAGEMENT OF HUMAN RESOURCES AND TRAIN ITS PERSONNEL

(3) SET UP AND INSTITUTIONALIZE BODIES FOR THE STRATEGIC MANAGEMENT OF JOBS AND HUMAN RESOURCES

176. These may be standing bodies or committees and working parties that meet periodically. Whatever the formula adopted, the heads of the human resources and other functional and operational directorates will be present to update strategy in connection with the port's human resource management policy.

(4) STRUCTURE THE INFORMATION ON JOBS AND HUMAN RESOURCES IN A DATA BASE, SYSTEMATIZE AND ENRICH THE INFORMATION AND INTRODUCE COMPUTERIZED PROCESSING

(5) SET UP AND ORGANIZE THE INTERNAL LABOUR MARKET AND ITS COMMUNICATIONS SYSTEM

177. The management of human resources is broadly shared between the corresponding functional directorate and the supervisors at various levels. Optimizing the career of every employee and matching the employee with the post, within the limits of his personal abilities and the opportunities available, will be possible only if large numbers of supervisors lend their support.

178. The aim is to ensure the transparency of job supply and demand within the organization and to encourage and, at the same time, control the participants by defining the operating principles of the market in a few simple, public, permanent and intangible rules.

(6) IMPROVE THE METHODS AND THE TOOLS AND FORMALIZE THE PROCEDURES FOR UPDATING AND MAINTAINING THE SYSTEM

(7) OPTIMIZE THE PERFORMANCE APPRAISAL SYSTEM

179. The evaluation of the individual and collective potential of the port's employees is one of the basic tasks of strategic job and human resource management. Its reliability determines the ultimate success of efforts to match the resource to the job. It is an essential feature of the performance monitoring and appraisal interview that each employee should have with his immediate superior, at least once a year.

180. This interview also has an important part to play in motivating the team. It nourishes and develops the spirit of dialogue within the organization. It must be conducted under optimum conditions and provide information pertinent to the strategic management of the human potential.

(8) GENERALIZE, AT SUPERVISOR LEVEL, A SKILL-MOBILIZING STYLE OF TEAM LEADERSHIP AND MAKE CLEAR THE INDIVIDUAL AND COLLECTIVE IMPLICATIONS

181. The supervisors share to a large extent in the accomplishments and failures of the port's human resource management. Their attitude to their team determines the employees' perception of the quality of human resource management within the enterprise.

(9) DEFINE THE REMUNERATION POLICY AND INSTALL AN APPROPRIATE MANAGEMENT SYSTEM

182. Even when the management enjoys only limited autonomy, it is necessary and feasible to overhaul and improve remuneration practices in phase with the modernization of the human resource management system. This will make it possible to stimulate individual and collective performance while respecting the principles of transparency and fairness, whatever the amount to be distributed and the regulatory constraints to be observed.

(10) DEVISE AND POPULARIZE AN INTERNAL COMMUNICATIONS SCHEME

183. The aim of internal communications is to energize and generate enthusiasm for the new human resource policy and to promote the development of the port.

(11) BE ACTIVE AND PRAGMATIC

184. The numerous measures recommended presuppose the satisfaction of certain preliminary conditions. However, this should not dissuade managers from pressing ahead. Even if the initial conditions are not exactly right, taking limited, small-scale, local measures is better than doing nothing at all. Often the conditions will automatically come right as the action progresses.

(12) ADVANCE BY MODULES AND BY STEPS, CONSISTENTLY, AND IN ACCORDANCE WITH AN OVERALL PLAN AND A SYSTEM OF PREASSIGNED PRIORITIES

185. Giving precedence to action and succeeding without dissipating resources presupposes that guidelines have been laid down and a list of priorities established. If this has been done, it will be possible not only to press ahead without having satisfied all the formal and substantial preconditions but also to ensure that the various parts or modules and the consecutive steps are mutually consistent.

Annex

DESCRIPTION OF THE POST OF DIRECTOR OF HUMAN RESOURCES
OF A NATIONAL PORT BOARD (NPB)

I. Task

Within the framework of the strategic principles of the medium-term plan and in conformity with the social legislation and statutory and regulatory provisions, to provide and develop the human resources necessary to the accomplishment of the National Port Board's mission, while maintaining excellent relations between employer and employees.

II. Dimensions of the post

Total number of staff:	4,700, including 450 supervisors
Aggregate remuneration:	$50 million
Number of subordinates:	66, including 14 supervisors
Operating budget:	$600,000

III. Place in the organization

Director-General

- Dir., Infrastructure & Equipment
- Dir., Finance
- Dir., Operations
- Dir., Administrative and Legal Services
- Dir., Economic and Commercial Services and Development
- Dir., Organization and Information Systems
- Director of Human Resources

IV. Organization attached to the post

The following units operate under the authority of the Director of Human Resources:

(a) Port training centre (16 staff, including 3 managerial)

Responsible for determining the technical training requirements of the non-managerial staff and designing and implementing the necessary training programmes.

(b) Administrative management and pay unit (14 staff, including 2 managerial)

Responsible for implementing the remuneration and regulatory policies and for staff and payroll administration.

(c) Executive management unit (4 staff, including 3 managerial)

Responsible for implementing the action plans for the quantitative and qualitative matching of managerial resources and requirements and for executive guidance and career progression within the NPB.

(d) Recruitment and professional development unit (3 staff, including 2 managerial)

Responsible for implementing the recruitment and training policy for all staff.

(e) Analysis and internal communications unit (3 staff, including 2 managerial)

Responsible for developing internal communications and setting up an information system composed of statistical studies, the social balance sheet and human resource management reports.

V. Immediate context of the post

The mission of the NPB is to handle all the country's seaborne foreign trade.

Under the supervision of the transport ministries, it is managed at national level by a Director General supported by the local port directors and the central functional directors, including the Director of Human Resources.

Within the framework of the medium-term plan, which he helps to draw up, the role of the Director of Human Resources is to develop the human potential of the NPB and to ensure that it matches the short- and medium-term requirements of the Board, quantitatively and qualitatively, in conformity with the annual outline law, the social legislation and the Board's own rules and regulations.

The principal challenges facing the Director of Human Resources are as follows:

- to operate in the "open" and heterogeneous port milieu. The port is a meeting place for the many different players involved in port business (customs, dockyard police, harbourmaster's staff, etc.), which breeds problems of communication attributable to intellectual, behavioural and cultural differences.

Within this multidimensional space, this centre of criss-crossing influences, this permeable environment, it is sometimes difficult to determine the precise distribution of responsibilities and to define mutual rights and obligations.

All this creates tension and an unfavourable social climate.

- to take into account the positions of the two sides in trade union negotiations.

If the problems are ill-defined and the claims vague and contradictory, the discussions will be interminable. Any changes should be introduced progressively, since they are sure to meet with suspicion and almost systematic rejection.

- to allow for the wide range of socio-professional categories, the disparate ages of the NPB personnel and their different expectations.

On the one hand, the possibilities of mobilizing the executive staff, mostly newly recruited young graduates, will essentially depend on the prospects for advancement that the NPB can offer. On the other hand, the workers and clerical staff, mostly people with longer service and no qualifications, feel themselves threatened by the mass arrival of young executives and the recent restructuring measures.

- to take into account the constraints imposed by a wages policy out of step with the ambitions of the enterprise. In this area, the Board's freedom of manoeuvre is very restricted and no changes can be made without the prior consent of the competent ministries.

- to keep a close eye on the staff age pyramid and take in good time the measures necessary to offset the adverse effects of massive waves of retirement.

- to take into account the weight of tradition opposing the introduction of new work rules designed to permit sounder management better adapted to the development of the port's activities.

- to take into account the rapid and serious chain effect of port labour problems on related sectors and the national economy.

VI. Specific duties

The duties of the Director of Human Resources can be subdivided under three heads:

(a) Definition of the NPB's human resource policy

In collaboration with the human resources officers in the local ports and the heads of the central divisions, the Director of Human Resources defines the principles, objectives, actions and policies of the NPB in the field of human resources.

This involves drawing up a training scheme (for managerial and non-managerial staff), a wages policy (wage scales and bonuses) and a recruitment and internal promotion plan.

The Director supervises the implementation of these plans, coordinates the measures taken and makes any necessary adjustments.

(b) Negotiations with the unions and external relations

The Director of Human Resources is responsible for handling interport trade union problems. In these instances he deals with the trade union federation.

On major issues, he may intervene directly at local port level in order to ensure the consistency of the measures or positions taken and to monitor the repercussions of the local social climate on the port system as a whole.

He is also called upon to deal with the ministries where personnel matters are concerned (recruitment, regrading, annual pay settlements) and to maintain official relations with national administration and international organizations.

(c) Personnel management and administration

In this area, in addition to supervising the units assigned to these activities, the main task of the Director of Human Resources is to analyse the social balance sheet and seek corrective measures.

He validates interport transfers and presides over the disciplinary council.

He supervises the granting of mortgage loans to the staff and organizes the NPB's internal elections.

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VII. Specific purposes of the post

* To guarantee observance of the statutory and regulatory procedures and policies:

  - by providing the necessary information and assistance for the port supervisors at all levels,

  - by keeping the personnel of the human resources department constantly alert to these questions,

  - by checking their application.

* To maintain a favourable social climate in the organization:

  - by optimizing the social dialogue with the bodies representing the personnel,

  - by encouraging and developing internal communications,

  - by putting in place a system of systematic initial and advanced training for human resource management officers,

  - by guarding against interference between the various ports and establishments in this area.

* To maintain a high level of competence and motivation in all the NPB's functions and occupations:

  - by supervising recruitment,

  - by watching over the development of the personnel,

  - by defining training measures,

  - by developing the management of careers and professional advancement within the NPB.

* To contribute to the development and profitability of the NPB:

  - by participating in the strategic decisions of the board of management,

  - by anticipating the opportunities and risks involved in matching resources and requirements, on the one hand, and the post and its occupant, on the other,

  - by stating and having stated the strategic choices in policies and action plans relating to the management and development of human resources.

* To improve the image of the Director of Human Resources within the NPB:

  - by constantly developing the competence and performance of the members of the human resources department,

  - by encouraging interdepartmental exchanges,

  - by making the members of the human resources department more receptive and readier to listen to the problems of all grades of staff and developing their spirit of service and concern for efficiency.

* To provide the NPB with reliable human resource management and development systems:

  - by acquiring and putting in place the most suitable methods and equipment,

  - by developing the abilities of the members of the human resources department to operate and maintain the systems,

  - by taking care to adapt the systems to developments in the human resources function and in the NPB's human resources requirements.

* To endeavour to optimize aggregate remuneration in relation to turnover:

  - by seeking to match resources to requirements, quantitatively and qualitatively,

  - by introducing a fair appraisal system,

  - by providing the NPB with a remuneration system that offers incentives and encourages progress.